Preliminary Assessment Report
Northrop (Y-19)
Fullerton, Orange County, California

EPA ID No.: CAN000900325
USACE Contract Number: W91238-11-D-0001
Interagency Agreement No.: 95777001-0
Document Control Number: 20074.063.116.1004

June 2017

Prepared for:
U.S. Environmental Protection Agency
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List of Acronyms

µg/L	microgram per liter
APN	Assessor Parcel Number
bgs	below ground surface
CDPH	California Department of Public Health
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
COWD	City of Orange Water Division
DCE	dichloroethylene
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EPA	United States Environmental Protection Agency
EST	Environmental Support Technologies
FFD	Fullerton Fire Department
ft^2	square foot
GSWC	Golden State Water Company
HRS	Hazard Ranking System
HWTS	Hazardous Waste Tracking System
ITC	International Technology Corporation
MCL	Maximum Contaminant Level
MWD	Metropolitan Water District of Southern California
NPL	National Priorities List
OCHCA	Orange County Health Care Agency
PA	Preliminary Assessment
PCE	tetrachloroethylene
ppb	parts per billion
PRC	PRC Environmental Management, Inc.
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RWQCB	Regional Water Quality Control Board
SEMS	Superfund Enterprise Management System
SPGIT	Spatial Prioritization Geographical Information Tool
TCA	trichloroethane
TCE	trichloroethylene
UST	underground storage tank
VOC	volatile organic compound
WESTON®	Weston Solutions, Inc.
WRCC	Western Regional Climate Center

1.0 INTRODUCTION

1.1 Regulatory Background

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Weston Solutions, Inc. (WESTON®) has been tasked to conduct a Preliminary Assessment (PA) of the Northrop (Y-19) (Northrop) site in Fullerton, Orange County, California.

The purpose of a PA is to review existing information on a site with potential releases of a hazardous substance and its environs to assess the threats, if any, posed to public health, welfare, or the environment and to determine if further investigation under CERCLA is warranted. The scope of a PA generally includes review of existing information available from federal, state, and local agencies.

Using existing information sources, a site is then evaluated using the U.S. Environmental Protection Agency (EPA) Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by EPA to help set priorities for further evaluation and eventual remedial action at hazardous substance sites. The HRS is the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL is a list compiled by EPA of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response. This report summarizes the findings of these preliminary investigative activities.

The Northrop site is identified as a potential hazardous waste site and entered into the Superfund Enterprise Management System (SEMS) (SEMS ID No.: CAN000909362) (EPA, 2017).

More information about the Superfund program is available on the EPA website at http://www.epa.gov/superfund/programs/npl_hrs/siteasmt.htm.

1.2 Apparent Problem

EPA determined that a PA was needed at the Northrop site because of the following apparent problems:

- In 1990, EPA conducted a Resource Conservation and Recovery Act (RCRA) Compliance Inspection and noted several violations including non-compliant storage of hazardous substances. EPA reported that the site generated less than 1 gallon per day of 1,1,1-trichloroethane (1,1,1-TCA) (DTSC, 2015).
- In 2009, a soil gas survey was conducted along the border of the property, and results indicated the presence of trichloroethylene (TCE), tetrachloroethylene (PCE), and 1,1,1-TCA (DTSC, 2015).

- In May 2015, the Department of Toxic Substances Control (DTSC) completed a Site Screening of the Northrop site for EPA. It was determined, with respect to the regional groundwater flow, that the site is situated upgradient from several municipal supply wells that have been identified with elevated concentrations of volatile organic compounds (VOCs), including PCE and TCE. EPA agreed with DTSC's recommendation that a PA be conducted for the Northrop site (DTSC, 2015).

2.0 SITE DESCRIPTION

2.1 Location

The Northrop site is located at 1401 East Orangethorpe Avenue, Fullerton, California. The geographic coordinates for the site are 33° 51' 38.47" North latitude and 117° 54' 14.54" West longitude (Appendix A). The location of the site is shown in Figure 1.

2.2 Site Description

The Northrop site occupies approximately 5.38 acres in an urban industrial and commercial area. The site is bordered to the north by an industrial warehouse, to the east by a digital radio-frequency and microwave circuit materials manufacturer (Nelco), to the south by East Orangethorpe Avenue, and to the west by a wheel and tire retailer (EG Wheels & Tires). The site occupies Orange County Assessor Parcel Number (APN) 073-110-64 (DTSC, 2015; Google, 2015; Yellow Pages, 2015).

As of August 2016, the site contained a single 111,723-square-foot (ft^2) building with multiple roll-up doors located along the eastern and southern sides. The interior of the building was partitioned into three separate units. The floors were concrete, and there were several cutouts and repairs that may have previously been floor drains or sumps. Paved parking areas were located in the southern and eastern portions of the property. A paved storage yard was located in the northern portion of the property. An apparent storm drain and sump appeared to be located in the northwest corner of the property; however, the current tenant stated that it is not in operation (Appendix B; Google, 2015).

Historically, a hazardous substances accumulation area was located adjacent north of the building. The area consisted of a concrete pad that was subdivided into seven separate areas by 6-inch concrete berms. Three of these bermed areas were designated for hazardous substance storage; three were used for chemical product storage; and the remaining area was occupied by a raised concrete sump. Paint booths were located in the central western area of the building. A solvent degreasing area was located in the Electrical/Mechanical Assembly Room in the southeastern portion of the building. An 8,000-gallon underground storage tank (UST) was reportedly located on the northern side of the facility building. In addition, a railroad spur track was located along the western border of the property. A site layout map is presented in Figure 2 (ITC, 1990; PRC, 1990; RWQCB, 1992; DTSC, 2015).

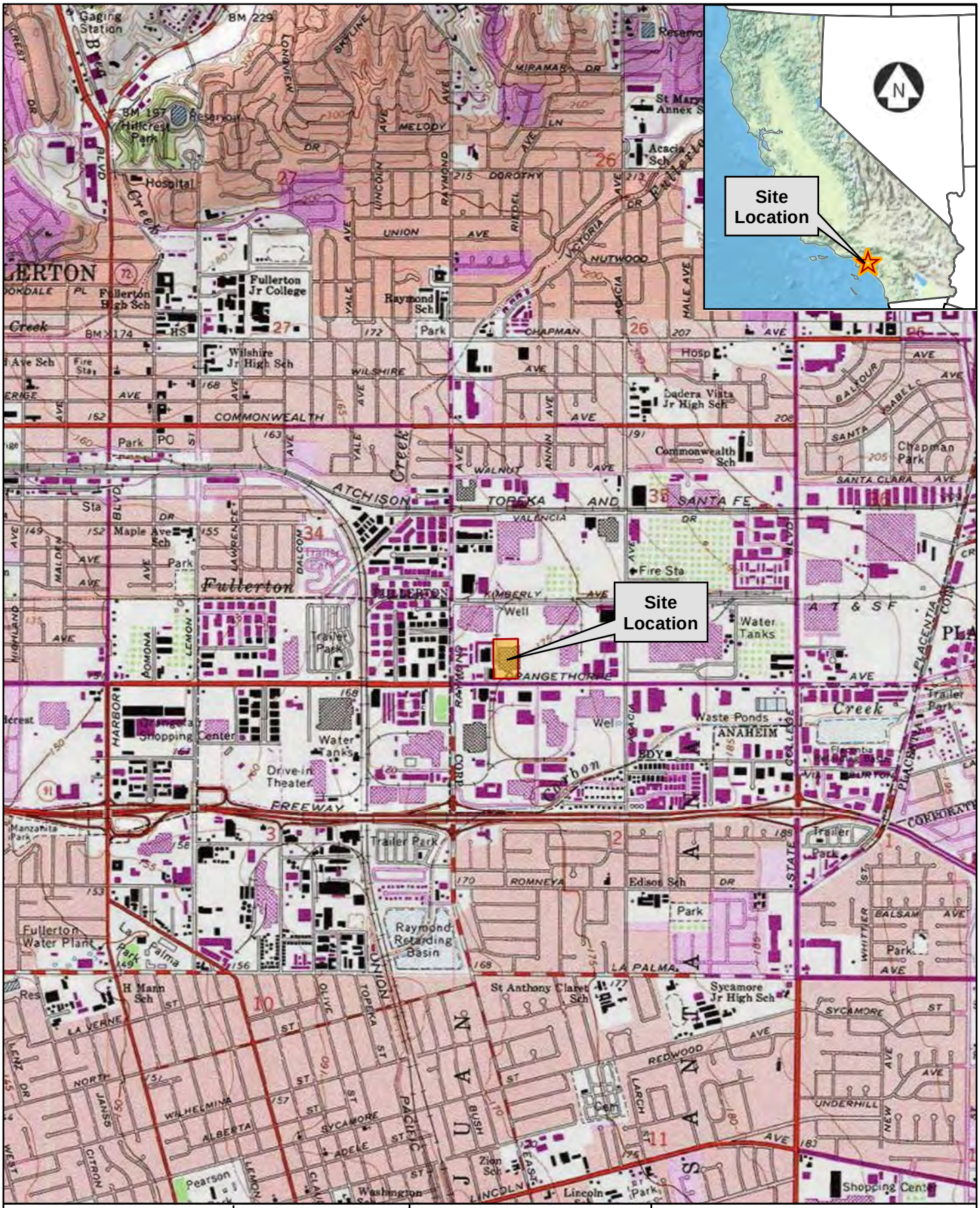

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FIGURE 1
SITE LOCATION MAP
Northrop (Y-19)
1401 East Orangethorpe Avenue
Fullerton, Orange County, California

Project Number: 20074.063.116.1004

N

0 Scale in Feet 100

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FIGURE 2
SITE LAYOUT MAP
Northrop (Y-19)
1401 East Orangethorpe Avenue
Fullerton, Orange County, California

Project Number: 20074.063.116.1004

2.3 Operational History

Historical operations conducted on the Northrop site include television picture tube manufacturing from 1953 to 1957 (Sylvania Electric Products); electrical components manufacturing from 1963 to 1965 (Rohr Corporation); a business with unknown operations from 1967 to 1976 (Crown Cork and Seal); galvanizing utilizing acid vats in 1976 and 1977 (Sentry Steel and Wire and Cook-Sanders Wire/Bar); audio tape manufacturing in 1979 (Memorex Corporation); and electronic component assembly, painting, soldering, degreasing and storage operations from 1982 to 1990 (Northrop Corporation). Since 2008, the site has been owned by TCLW/Weil and Company (ITC, 1990; PRC, 1990; DTSC, 2015).

The operations and hazardous substances used prior to 1982 are unknown. However, records indicate that an 8,000-gallon UST was installed onsite to store paint and was reportedly removed in 1974. There are no records indicating whether soil sampling within the tank excavation occurred (ITC, 1990; DTSC, 2015).

From 1982 to 1990, Northrop Corporation used the site as a satellite facility, designated Building Y-19, which was located approximately 0.75 mile west of the main facility. The site primarily housed facilities for assembling circuit boards and other electronic components. The site generated less than 1 gallon per day of 1,1,1-TCA from a small print circuit board project. Waste 1,1,1-TCA was stored in 55-gallon drums and stored in the facility's waste accumulation area before being transported to the main facility's accumulation area prior to off-site disposal. A December 1985 inspection conducted by Orange County lists the following hazardous substances as being present onsite: methylene chloride, 1,1,1-TCA, trichlorofluoroethane, hydraulic oil, degreaser sludge, solder waste, and isopropyl alcohol. Additional inspections conducted in 1987, 1989, and 1990 note 1,1,1-TCA as being an identified waste stream. A 1990 Fullerton Fire Department (FFD) Chemical Description Form lists 1,1,1-TCA as being stored along the northeast exterior portion of the building in the chemical storage area. The maximum daily amount is listed as 55 gallons, and approximately 880 gallons of waste 1,1,1-TCA are generated annually (FFD, 1990; ITC, 1990; PRC, 1990; DTSC, 2015).

In 1985, a vapor release occurred from one drum of flammable solvent that reacted with a non-flammable solvent to produce a corrosive liquid. No further information regarding cleanup or further action is known. In 1986, 5 to 7 gallons of waste spilled as a result of overfilling a waste storage container. The spillage occurred in the hazardous materials/storage area. No further information regarding cleanup or further action is known (ITC, 1990).

From 2008 to 2013, Lap Co occupied the Northrop site. Exact operations are unknown; however, hazardous substances generated and/or stored onsite include unspecified liquid mixture, liquid with halogenated organic compounds, TCE-related waste, and non-halogenated solvent waste (HWTS, 2014a; HWTS, 2014b).

Since 2012, Goton Tiles has occupied the Northrop site and operated as a tile import warehouse. No manufacturing occurs at the site, and currently no hazardous materials are stored or used in onsite operations. Atlas Construction Supply also currently occupies the site and operates as a

wholesaler of construction supplies, including concrete forms, as well as sealants, epoxies, and paints pre-packaged in pails and drums. No manufacturing occurs on the premises, and the only hazardous waste generated is from leaky/defective packaging. In addition, Concrete Accessories, Inc. operates onsite as a manufacturer of concrete reinforcement elements. The facility cuts and threads spec-steel rod onsite. The facility uses lube/cutting oil, and generates waste lube/cutting oil. Steel rod is stored in both the inside warehouse, as well as the back (north) area of the lot. All three tenants of the site stated that no VOCs are used in onsite operations (Appendix B).

Unaltered petroleum products, as well as any substances that are purposefully added to the indigenous petroleum product during the refining process, are excluded from consideration under CERCLA.

2.4 Regulatory Involvement

2.4.1 U. S. Environmental Protection Agency (EPA)

The Northrop site is listed in the Resource Conservation and Recovery Information System (RCRIS) database as "Lap Co" (Handler ID: CAD980895098), a Small Quantity Generator, addressed at 1401 East Orangethorpe Avenue (RCRIS, 2015).

In 1990, a RCRA Compliance Evaluation Inspection was conducted at both the main Northrop Corporation facility located approximately 0.75 mile east of the site and the satellite facility at the site, referred to as Building Y-19. Northrop considered the main facility and Building Y-19 to be one single facility and obtained only one EPA ID number for conducting hazardous waste management activities (EPA ID: CAD008289431). It was observed that Building Y-19 generated less than 1 gallon per day of 1,1,1-TCA from a printed circuit board project. Two 55-gallon drums of waste 1,1,1-TCA were accumulated at the facility's hazardous waste accumulation area. The drums were to be transported to the main facility's accumulation area prior to offsite disposal. One 55-gallon drum of waste 1,1,1-TCA was observed to be onsite for 371 days (PRC, 1990).

2.4.2 California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)

The Northrop site is listed in the DTSC Envirostor database as "Northrop Y-19" (Envirostor ID: 60002053) at 1401 East Orangethorpe Avenue. The site is listed as "Active" as of August 19, 2014 (Envirostor, 2015).

2.4.3 California Environmental Protection Agency, Regional Water Quality Control Board (RWQCB)

The Northrop site is not listed in the RWQCB GeoTracker database (GeoTracker, 2015).

In 1992, a soil vapor investigation was conducted on multiple facilities by RWQCB as part of a groundwater investigation on a facility located west of the Northrop site. Details of this investigation are provided in Section 3.0 (RWQCB, 1992).

2.4.4 Orange County Health Care Agency (OCHCA)

Facility inspections were conducted by OCHCA on an infrequent basis. Inspections conducted in 1985, 1987, 1989, and 1990 noted 1,1,1-TCA as an onsite waste stream (ITC, 1990).

2.4.5 City of Fullerton Fire Department (FFD)

In 1985, the City of Fullerton determined that an underground sump located along the exterior northern portion of the facility was a violation of the Uniform Fire Code and required that an official closure be handled by Northrop, the site occupants at the time. Northrop claimed that the sump was installed prior to their occupancy and requested the prior tenants, Memorex, to complete the closure requested by FFD. There is no documentation of FFD granting closure of the onsite sump (Northrop, 1985a).

A 1987 FFD Hazardous Materials Disclosure Form lists waste 1,1,1-TCA as being present onsite. The maximum amount on site at any one time is listed as 110 gallons (FFD, 1987).

2.5 Summary of Site Description

Address: 1401 East Orangethorpe Avenue, Fullerton, California (33° 51' 38.47" North latitude and 117° 54' 14.54" West), APN 073-110-64.

Description: 5.38-acre site with a single 111,723-ft^2 building

Agency Databases:

Database	Site Name in Database	Database ID
RCRIS	Lap Co	CAD980895098
DTSC Envirostor	Northrop Y-19	60002053

History:

Site Name	Owner	Year	Onsite Hazardous Substances	Violations
Sylvania Electric Products	-	1953 - 1957	-	None on file
Rohr Corporation	-	1963 - 1965	-	None on file
Crown Cork and Seal	-	1967 - 1976	-	None on file
Sentry Steel and Wire and Cook-Sanders Wire/Bar	-	1976 - 1977	-	None on file
Memorex Corporation	-	1979	-	None on file
Northrop Corporation	-	1982 - 1990	Methylene chloride, 1,1,1-TCA, trichlorofluoroethane, hydraulic oil, degreaser sludge, solder waste, and isopropyl alcohol	None on file
Goton Tiles/Lap Co	TCLW/Weil and Company	Since 2008	Unspecified liquid mixture, liquid with halogenated organic compounds, TCE related waste, and non-halogenated solvent waste	None on file

- The information is unknown.

3.0 INVESTIGATIVE EFFORTS

In 1985, the Northrop Corporation conducted an environmental audit to perform a comprehensive technical assessment of Northrop manufacturing facilities. The audit investigated air pollution control, water pollution control, and hazardous waste management practices. The audit of air pollution control activities noted that a gauge and four filter panels were missing from the permitted spray paint booth within Building Y-19 (the site). In addition, the booth was found to have posted operating instructions that contradicted the permit operating condition that required the use of only non-photochemically reactive solvents (Northrop, 1985b).

In 1990, a Phase I Environmental Assessment was performed at the site by the Northrop Corporation. During the site reconnaissance, four air emission sources were identified within the facility: three spray booths and a reflow solder system. It was determined at the time that the spray booths and solder equipment were no longer in use and being stored until transfer to other locations. The hazardous materials/waste storage area was fenced, and there was no evidence of deterioration of the concrete slab. A concrete-lined sump, located within the storage area, was not used by the facility and was empty. Subsequent to the site reconnaissance, sampling activities were conducted that included the collection of a solid sample from within the sump. The sample was analyzed for VOCs using EPA Method 8240. Analytical results indicated that the sample exhibited concentrations of 1,1,1-TCA at 23 parts per billion (ppb) and TCE at 90 ppb. It was recommended that the sump be cleaned of all surface scale and resampled to ensure all contaminants were removed (ITC, 1990).

In 1992, RWQCB was investigating groundwater contamination beneath a facility located at 800 South Raymond Avenue, approximately 700 feet northwest of the Northrop site. As part of the investigation, four soil gas samples were collected adjacent to the former railroad tracks along the western border of the property. The investigation showed the presence of a significant TCE and PCE hot spot on the Northrop site. It was recommended that a soil investigation be conducted onsite to further delineate the VOC soil contamination. Results are presented in Table 1, and approximate sample locations are presented in Figure 3 (RWQCB, 1992).

Table 1: 1992 Soil Gas Results (Ion Counts)

Sample ID	TCE	PCE
16	4,628	16,022
17	127,368	115,053
18	2,546	10,488
19	0	3,347

N

0 Scale in Feet 100

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FIGURE 3
PREVIOUS SAMPLING LOCATIONS
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In 2009, a soil gas survey was conducted at the Northrop site. Seven sample locations along the northern and eastern borders of the building were sampled at depths of 10 feet and 20 feet below ground surface (bgs). TCE concentrations were all non-detect with the exception of sample Y19-SG2, located adjacent to the former hazardous waste storage area, where TCE was detected at 8.3 micrograms per liter (µg/L) of gas in the 10 foot bgs sample and 17 µg/L of gas in the 20 foot bgs sample. PCE concentrations were non-detect in all of the 20 foot bgs samples and ranged from 1.5 µg/L of gas to 3.0 µg/L of gas in the 10 foot bgs samples. The commercial/industrial land use California Human Health Screening Levels (CHHSLs) for PCE and TCE in shallow soil gas are 0.6 µg/L and 1.77 µg/L, respectively. 1,1-dichloroethylene (1,1-DCE) was non-detect in all of the samples. Approximate sample locations are presented in Figure 3 (EST, 2009).

In May 2015, DTSC completed a Site Screening of the Northrop site for EPA. It was determined, with respect to the regional groundwater flow, that the site is situated upgradient from several municipal supply wells that have been identified with elevated concentrations of VOCs, including PCE and TCE. Details of the contaminated municipal drinking water wells are presented in Section 4.2.2. DTSC recommended that the site remain in EPA's active site universe until the nature of the release or potential release cited in the screening assessment can be confirmed. EPA agreed with DTSC's recommendation that a PA be conducted for the Northrop site (DTSC, 2015).

No additional soil vapor, soil matrix, or groundwater sampling is known to have been conducted at the Northrop site.

4.0 HAZARD RANKING SYSTEM FACTORS

4.1 Sources of Contamination

For HRS purposes, a source is defined as an area where a hazardous substance has been deposited, stored, disposed, or placed, plus those soils that have become contaminated from migration of a hazardous substance.

- The site generated less than 1 gallon per day of 1,1,1-TCA from a small print circuit board project. Waste 1,1,1-TCA was stored in 55-gallon drums and stored in the facility's waste accumulation area before being transported to the main facility's accumulation area prior to off-site disposal (ITC, 1990; PRC, 1990; DTSC, 2015).
- In 1990, a solid sample from within the concrete-lined sump was collected. Analytical results exhibited elevated concentrations of 1,1,1-TCA and TCE (ITC, 1990).
- Soil gas samples collected in 1992 and 2009 exhibited elevated concentrations of PCE and TCE (EST, 2009; RWQCB, 1992).

4.2 Groundwater Pathway

In determining a score for the groundwater migration pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to groundwater; 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, mobility, and quantity); and 3) the people (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on the number of people who regularly obtain their drinking water from wells that are located within 4 miles of the site. The HRS emphasizes drinking water usage over other uses of groundwater (e.g., food crop irrigation and livestock watering) because, as a screening tool, it is designed to give the greatest weight to the most direct and extensively studied exposure routes.

4.2.1 Hydrogeological Setting

The Northrop site lies within the Coastal Plain of Orange County Groundwater Basin, which underlies a coastal alluvial plain in the northwestern portion of Orange County. The basin is bounded by consolidated rocks exposed on the north in the Puente and Chino Hills, on the east in the Santa Ana Mountains, and on the south in the San Joaquin Hills. The basin is bounded by the Pacific Ocean on the southwest and by a low topographic divide approximately by the Orange County – Los Angeles County line on the northwest. The basin underlies the lower Santa Ana River watershed (DWR, 2004).

The Orange County Basin is dominated by a deep structural depression containing a thick accumulation of fresh water-bearing interbedded marine and continental sand, silt, and clay deposits. The sediments containing easily recoverable fresh water extend to approximately 2,000 feet in depth. Upper, middle, and lower aquifer systems are recognized in the basin. The upper aquifer system includes Holocene alluvium, older alluvium, stream terraces, and upper Pleistocene

deposits represented by the La Habra Formation. Generally, the upper aquifer system contains a lower percentage of water-bearing strata in the northwest and coastal portions of the area where clays and clayey silts dominate. The upper aquifer provides most of the irrigation for the basin. The middle aquifer system includes the lower Pleistocene Coyote Hills and San Pedro Formations, which have an average thickness of 1,600 feet and are composed of sand, gravel, and minor amounts of clay. The middle aquifer system provides the majority of groundwater for the basin. The lower aquifer system includes the Upper Fernando Group of upper Pliocene age and is composed of sand and conglomerate 350 to 500 feet thick (DWR, 2004).

Groundwater beneath the site is estimated to be at least 100 feet bgs. Data from an adjacent property indicates that the groundwater flow direction in the vicinity is generally westerly with variation to the northwest and southwest. Geologic materials in the unsaturated zone between ground surface and the top of the aquifer are primarily silty sand, and the net precipitation in the area is approximately 11.84 inches annually (SPGIT, 2014; DTSC, 2015; WRCC, 2015).

4.2.2 Groundwater Targets

The Northrop site is located within a known groundwater contamination plume that exists both upgradient and downgradient of the site. In May 2015, DTSC completed a Site Screening of the Northrop site for EPA. It was determined, with respect to the regional groundwater flow, that the site is situated upgradient from several municipal supply wells that have been identified with elevated concentrations of VOCs, including PCE and TCE (DTSC, 2015; SPGIT, 2014).

There are at least 27 drinking water wells within 4 miles of the Northrop site. The nearest drinking water well to the site is Kimberly Well 01A, operated by the City of Fullerton and located approximately 830 feet to the north-northeast (DTSC, 2015; GeoTracker, 2016; WESTON, 2017).

The City of Fullerton operates a drinking water system that consists of 11 active wells serving approximately 138,251 people. The City of Fullerton obtains its drinking water from groundwater from the Orange County groundwater basin and from surface water imported by the Metropolitan Water District of Southern California (MWD). The City is separated into three areas that are defined by the source of water likely to be provided. Area 1 receives primarily groundwater; Area 2 receives a mixture of groundwater and imported water; and Area 3 receives primarily imported water. The site lies within Area 1, which is primarily served by groundwater. Ten of the 11 groundwater wells operated by the City of Fullerton are within 4 miles of the site.

The City of Fullerton Kimberly 02 well, located approximately 2,822 feet to the northeast of the site, has exhibited elevated concentrations of PCE and TCE. PCE was first reported in the well in January 1986 at a concentration of 1.2 µg/L. In September 1988, a maximum concentration of 4.7 µg/L of PCE was detected in the well. The Maximum Contaminant Level (MCL) for PCE is 5.0 µg/L. The latest available data from the Kimberly 02 well showed a PCE concentration of 0.6 µg/L in June 2014. TCE was first reported in the Kimberly 02 well in April 1986 at a concentration of 0.7 µg/L. The maximum concentration of TCE was detected in July 1989 at a concentration of 3.2 µg/L. The MCL for TCE is 5.0 µg/L. TCE has not been detected in the drinking water well since January 1993. Additional wells operated by the City of Fullerton (Kimberly Well 01 and Fire

Station Well 13) have historically had elevated concentrations of PCE and TCE and have been abandoned (CDPH, 2014a; CDPH, 2014b; CDPH, 2016a; CDPH, 2016b; Fullerton, 2015; DTSC, 2015; GeoTracker, 2016).

The City of Anaheim operates a drinking water system that consists of 17 active wells and one stand-by well serving approximately 350,000 people. The City of Anaheim's water supply is a blend of groundwater and water imported by MWD. Approximately 76 percent of the system is supplied by groundwater wells; the remaining 24 percent is imported surface water. Eleven of the 18 wells operated by the City of Anaheim are within 4 miles of the site (Anaheim, 2015; GeoTracker, 2016).

The Golden State Water Company – Placentia system operates a drinking water system that consists of five active wells serving approximately 46,543 people. The Golden State Water Company – Placentia system's water supply is a blend of groundwater and water imported by MWD. Approximately 55.3 percent of the system is supplied by groundwater wells; the remaining 44.7 percent is imported surface water. Four of the five wells operated by the Golden State Water Company – Placentia system are within 4 miles of the site (GSWC, 2015; GeoTracker, 2016; Appendix C-1).

The City of Orange Water Division (COWD) operates a drinking water system that consists of 15 active wells serving approximately 139,463 people. The City of Orange's water supply is a blend of groundwater and water imported by MWD. Approximately 71.1 percent of the system is supplied by groundwater wells; the remaining 28.9 percent is imported surface water. One of the 15 wells operated by the City of Orange is within 4 miles of the site (COWD, 2014; GeoTracker, 2016; Appendix C-2).

The Page Avenue Mutual Water Company operates a drinking water system that consists of one active drinking well serving approximately 115 people. All of the Page Avenue Mutual Water Company's water supply is from groundwater. The one well operated by Page Avenue Mutual Water Company is within 4 miles of the site (GeoTracker, 2016).

4.2.3 Groundwater Pathway Conclusion

The Northrop site is located within a known groundwater contamination plume with elevated concentrations of VOCs, including PCE, TCE, 1,1-DCE, and 1,1,1-TCA. Sampling conducted on the site has shown detectable concentrations of PCE, TCE, and 1,1,1-TCA. Reportedly, historical operations included the use of VOCs, including 1,1,1-TCA. Based on the historical operations and sampling conducted on the site, there is the potential that the Northrop site may be contributing to the contaminated groundwater plume in the vicinity of the site. Groundwater beneath the site is estimated to be at least 100 feet bgs. Geologic materials in the unsaturated zone between ground surface and the top of the aquifer are primarily silty sand. There are at least 27 drinking water wells within 4 miles of the site (DTSC, 2015; ITC, 1990; PRC, 1990; EST, 2009; RWQCB, 1992; GeoTracker, 2016; WESTON, 2017).

4.3 Surface Water Pathway

To determine the score for the surface water pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to surface water (e.g., streams, rivers, lakes, and oceans); 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, persistence, bioaccumulation potential, and quantity); and 3) the people or sensitive environments (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on drinking water intakes, fisheries, and sensitive environments associated with surface water bodies within 15 miles downstream of the site.

Surface water runoff from the Northrop site is expected to flow from the paved surfaces at the site into curbside municipal stormwater drains located along adjacent public roadways and easements. The nearest surface water body to the site is the Carbon Creek flood control channel, which is located approximately 0.33 mile southeast. Carbon Creek flows in a southwesterly direction and joins Coyote Creek before flowing into the San Gabriel River. There are no surface water intakes, fisheries, or sensitive environments associated with the San Gabriel River downstream of the site (SPGIT, 2014; Google, 2015; DTSC, 2015).

4.4 Soil Exposure and Air Migration Pathways

In determining the score for the soil exposure pathway, the HRS evaluates: 1) the likelihood that there is surficial contamination associated with the site (e.g., contaminated soil that is not covered by pavement or at least 2 feet of clean soil); 2) the characteristics of the hazardous substances in the surficial contamination (i.e., toxicity and quantity); and 3) the people or sensitive environments (targets) who actually have been, or potentially could be, exposed to the contamination. For the targets component of the evaluation, the HRS focuses on populations that are regularly and currently present on or within 200 feet of surficial contamination. The four populations that receive the most weight are residents, students, daycare attendees, and terrestrial sensitive environments.

In determining the score for the air migration pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to ambient outdoor air; 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, mobility, and quantity); and 3) the people or sensitive environments (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on regularly occupied residences, schools, and workplaces within 4 miles of the site. Transient populations, such as customers and travelers passing through the area, are not counted.

As of August 2016, there were no residences, schools, daycare facilities, or terrestrial sensitive environments located on the Northrop site. The total number of employees working at the site is not known (Appendix B; SPGIT, 2014; Google, 2015).

5.0 REMOVAL EVALUATION CONSIDERATIONS

The National Contingency Plan [40 Code of Federal Regulations (CFR) 300.415 (b) (2)] authorizes EPA to consider emergency response actions at those sites that pose an imminent threat to human health or the environment. For the following reasons, a referral to Region 9's Emergency Response Office does not appear to be necessary:

- As of August 2016, there were no residences, schools, daycare facilities, or terrestrial sensitive environments located on the Northrop site (Appendix B; SPGIT, 2014; Google, 2015).

6.0 SUMMARY

The Northrop (Y-19) (Northrop) site is located at 1401 East Orangethorpe Avenue, Fullerton, California. The site occupies approximately 5.38 acres in an urban industrial and commercial area on Orange County Assessor Parcel Number 073-110-64. As of March 2015, the site contained a single 111,723-square foot building with multiple roll-up doors located along the eastern and southern sides. Paved parking areas are located along the southern and eastern portions of the property. A paved storage yard is located in the northern portion of the property.

Historically, a hazardous substances accumulation area was located adjacent north of the building. The area consisted of a concrete pad that was subdivided into seven separate areas by 6-inch concrete berms. Three of these bermed areas were designated for hazardous substance storage; three were used for chemical product storage; and the remaining area was occupied by a raised concrete sump. Paint booths were located in the central western area of the building. A solvent degreasing area was located in the Electrical/Mechanical Assembly Room located in the southeastern portion of the building. An 8,000-gallon underground storage tank (UST) was reportedly located on the northern side of the facility building. In addition, a railroad spur track was located along the western border of the property.

From 1982 to 1990, Northrop Corporation used the site as a satellite facility, designated Building Y-19, which was located approximately 0.75 mile west of the main facility. The site primarily housed facilities for assembling circuit boards and other electronic components. The site generated less than 1 gallon per day of 1,1,1-trichloroethane (1,1,1-TCA) from a small print circuit board project. Waste 1,1,1-TCA was stored in 55-gallon drums and stored in the facility's waste accumulation area before being transported to the main facility's accumulation area prior to off-site disposal. A December 1985 inspection conducted by Orange County lists the following hazardous substances as being present onsite: methylene chloride, 1,1,1-TCA, trichlorofluoroethane, hydraulic oil, degreaser sludge, solder waste, and isopropyl alcohol. Additional inspections conducted in 1987, 1989, and 1990 note 1,1,1-TCA as being an identified waste stream.

The Northrop site is listed in the RCRIS database as "Lap Co" (Handler ID: CAD980895098), a Small Quantity Generator. The site is listed in the Department of Toxic Substances Control (DTSC) Envirostor database (Envirostor ID: 60002053) as "Active" as of August 19, 2014. The site is not listed in the Regional Water Quality Control Board (RWQCB) GeoTracker database.

In 1990, a solid sample from within the concrete-lined sump was collected. Analytical results exhibited elevated concentrations of 1,1,1-TCA and TCE. Soil gas samples collected in 1992 and 2009 exhibited elevated concentrations of PCE and TCE.

The following pertinent Hazard Ranking System factors are associated with the site:

- The Northrop site is located within a known groundwater contamination plume with elevated concentrations of VOCs, including PCE, TCE, 1,1-DCE, and 1,1,1-TCA. Sampling conducted on the site has shown detectable concentrations of PCE, TCE, and

1,1,1-TCA. Reportedly, historical operations included the use of VOCs, including 1,1,1-TCA. Based on the historical operations and sampling conducted on the site, there is the potential that the Northrop site may be contributing to the contaminated groundwater plume in the vicinity of the site.

- Groundwater beneath the site is estimated to be at least 100 feet bgs. Geologic materials in the unsaturated zone between ground surface and the top of the aquifer are primarily silty sand. There are at least 27 drinking water wells within 4 miles of the site.
- Surface water runoff from the Northrop site is expected to flow from the paved surfaces at the site into curbside municipal stormwater drains located along adjacent public roadways and easements. The nearest surface water body to the site is the Carbon Creek flood control channel, which is located approximately 0.33 mile southeast. Carbon Creek flows in a southwesterly direction and joins Coyote Creek before flowing into the San Gabriel River. There are no surface water intakes, fisheries, or sensitive environments associated with the San Gabriel River downstream of the site.
- As of August 2016, there were no residences, schools, daycare facilities, or terrestrial sensitive environments located on the Northrop site. The total number of employees working at the site is not known.

7.0 REFERENCES

Anaheim, 2015 City of Anaheim, Water Quality Report.

CDPH, 2014a California Department of Public Health, Well Data Graph, City of Fullerton, Kimberly 02, Trichloroethylene.

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CDPH, 2016b California Department of Public Health, Well Data Graph, City of Fullerton, Fire Station Well 13, Tetrachloroethylene and Trichloroethylene,.

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EST, 2009 Environmental Support Technologies, letter addressed to Alex Wallace, Subject: Soil Gas Survey Data Package Transmittal, Former Northrop Y19 Site, May 15, 2009.

Note: This document was noted confidential as attorney client product, but has since then been introduced to Court as Exhibit for Trial Case and is now a public document

FFD, 1987 Fullerton Fire Department, Hazardous Materials Disclosure Form, Northrop Corporation, May 8, 1987.

FFD, 1990 Fullerton Fire Department, Chemical Description Form, 1401 East Orangethorpe.

Fullerton, 2015 City of Fullerton, 2015 Water Quality Report.

GeoTracker, 2015 State Water Resources Control Board, GeoTracker Database, Search Results, 1401 Orangethorpe, Fullerton, http://geotracker.waterboards.ca.gov/search.asp; data extracted July 28, 2015.

GeoTracker, 2016 Regional Water Quality Control Board; GeoTracker Database – Regulator Access, DPH Public Supply Well Search Results; in the vicinity of 1401 East Orangethorpe Avenue, Fullerton, California; data extracted March 1, 2016.

Note: This document is confidential and is included in the confidential information packet

Google, 2015 Google Earth; 33°51'38.47"N, 117°54'14.54"W, imagery date: 3/24/2015; http://earth.google.com; data extracted August 13, 2015.

GSWC, 2015 Golden State Water Company, Placentia Water System, Consumer Confidence Report on Water Quality for 2014, 2015.

HWTS, 2014a Department of Toxic Substances Control, HWTS Waste Code Matrix Report, Lap Co, data extracted September 23, 2014.

HWTS, 2014b Department of Toxic Substances Control, HWTS Waste Code Matrix Report, Lap Co, data extracted September 23, 2014.

ITC, 1990 International Technology Corporation, Environmental Assessment for Real Property, Y-19 Facility, December 1990.

Note: This document is confidential and is included in the confidential information packet

Northrop, 1985a Northrop Corporation, Electro-Mechanical Division, letter addressed to Memorex Corporation, Subject: Northrop/Memorex Sublease, December 10, 1985.

Northrop, 1985b Northrop Environmental Sciences, Northrop Corporation Environmental Audit Electro-Mechanical Division, January 25-29, 1985.

Note: This document was noted confidential as attorney client product, but has since then been introduced to Court as Exhibit for Trial Case and is now a public document

PRC, 1990 PRC Environmental Management, Inc., RCRA Compliance Evaluation Inspection, Northrop Corporation, September 7, 1990.

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RCRIS, 2015 U.S. Environmental Protection Agency, RCRAInfo Search Results, Lap Co, http://www.epa.gov/enviro/facts/rcrainfo/search.html, data extracted May 27, 2015.

RWQCB, 1992 California Regional Water Quality Control Board, Soil Gas Survey, Vicinity of Former Moore Business Forms Site, Fullerton, California, September 1992.

SPGIT, 2014 Department of Toxic Substances Control, Spatial Prioritization Geographical Information Tool, Northrop Y-19, September 2014.

Note: This document is confidential and is included in the confidential information packet

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This document is confidential and is included in the confidential information packet

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Appendix A: Latitude and Longitude Calculations Worksheet

Latitude and Longitude Calculation Worksheet (7.5' quads)
Using an Engineer's Scale (1/50)

Site Name Northrop (Y-19) **CERCLIS #** CAN000900325

AKA

Address 1401 East Orangethorpe Avenue

City Fullerton **State** CA **ZIP** 92831

Site Reference Point Aerial – geometric center of site

USGS Quad Name **Scale**

Township **Range** **Section** 3 3 3

Map Datum ☐ 1927 ☐ 1983 **(Check one)** **Meridian**

Map coordinates at southeast corner of 7.5' quadrangle (attach photocopy)

Latitude E > **AN** **Longitude** E > **AW**

Map coordinates at southeast corner of 2.5' grid cell

Latitude E > **AN** **Longitude** E > **AW**

Calculations

LATITUDE(x)

A) Number of ruler graduations between 2.5' (150") grid lines **(a)**

B) Number of ruler graduations between south grid line and the site reference point **(b)**

C) Therefore, a/150 = b/x, where **x= Latitude in decimal seconds, north of the south grid line**

Expressed as minutes and seconds (1' = 60") = E > AN

Add to grid cell latitude = E > AN + E > AN

Site latitude = 33 º 51 ' 38 " N

LONGITUDE(y)

A) Number of ruler graduations between 2.5' (150") grid lines **(a)**

B) Number of ruler graduations between south grid line and the site reference point **(b)**

C) Therefore, a/150 = b/x, where **x= Longitude in decimal seconds, west of the east grid line**

Expressed as minutes and seconds (1" = 60") = E > AW

Add to grid cell longitude = E > AN + E > AN

Site longitude = 117 º 54 ' 15 " W

Appendix B:
Site Reconnaissance Interview and Observation Report/ Photographic Documentation

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT/PHOTOGRAPHIC DOCUMENTATION

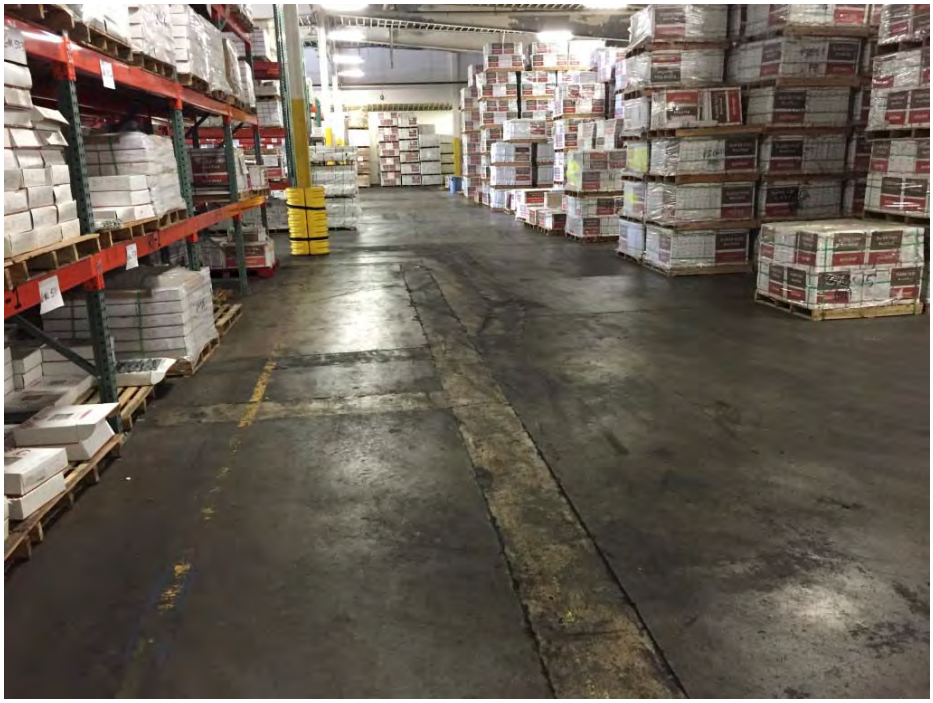
Date: **August 2016**
Site Name: **Northrop (Y-19)**
EPA ID No.: **CAN000900325**

****

On August 9, 2016, WESTON and Kim Hoang (US EPA) conducted a site visit of the former Northrop Y-19 Facility at 1401 E. Orangethorpe Avenue, in Fullerton, CA. WESTON and Ms. Hoang met with the site owner's representative, John Dodge, of D.B. Stephens and Associates, Inc. According to Mr. Dodge, the site includes the following addresses and tenants:

- 1401 E. Orangethorpe Ave. – Goton Tiles – operating a tile import warehouse operating at the site since approximately 2012. No manufacturing occurs at the site, and there are currently no hazardous materials stored or used.
- 1405 E. Orangethorpe Ave. – Atlas Construction Supply – a wholesaler of construction supplies, including concrete forms, as well as sealants, epoxies, and paints pre-packaged in pails and drums. No manufacturing occurs on the premises, and the only hazardous waste generated is from leaky/defective packaging. The owner, Robert Wiegman, indicated that Atlas Construction uses or stores no chlorinated solvents onsite.
- 1409 E. Orangethorpe Ave. – Concrete Accessories, Inc. – a manufacturer of concrete reinforcement elements. The facility cuts and threads spec-steel rod onsite. The facility uses lube/cutting oil, and generates waste lube/cutting oil. Steel rod is stored in both the inside warehouse, as well as the back (north) area of the lot. The facility does not use PCE or TCE, according to the company president, Mr. Vasken Kassarjian. Mr. Kassarjian indicated that he had a Phase I done on the site before he leased the facility.

The facility consists of a tilt-up construction building on a mostly paved lot. The interior of the building is partitioned into three separate units. The floors are concrete, and there are several cutouts and repairs that may have been floor drains or sumps in the past.
The outside yard is mostly asphalt and concrete that is stained and patched in several places. There is what appears to be a storm drain and sump located in the northwest corner of the lot with a curious array of hoses leading to it – none of the tenants or Mr. Dodge could explain the purpose or history of this feature.



Site: Northrop Y19 Site
Photograph No.: 1 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: The interior of the western half of the building, now occupied by Goton Tiles, a ceramic tile wholesale/retail warehouse. The only features possibly remaining from the original operation are several backfilled concrete cutouts in the floor that may represent drains or utility corridors.

Site: Northrop Y19 Site
Photograph No.: 2 **Date:** 8-09-2016
Direction: North **Photographer:** Ben Castellana
Subject: The interior of the western half of the building, now occupied by Goton Tiles, a ceramic tile wholesale/retail warehouse, showing product storage and floor cutouts in the concrete.

Site: Northrop Y19 Site
Photograph No.: 3 **Date:** 8-09-2016
Direction: Northwest **Photographer:** Ben Castellana
Subject: The northwest corner of the facility, showing the asphalt surface and a stormwater sump in the far northwest corner. There is a set of hoses leading to the sump that do not serve an obvious purpose.

Site: Northrop Y19 Site
Photograph No.: 4 **Date:** 8-09-2016
Direction: East **Photographer:** Ben Castellana
Subject: View of the paved lot north of the building, shared by Goton Tiles and Concrete Accessories, Inc. The lot is used to store raw materials and product overstock. Note the asphalt repair in the center of the lot.

Site: Northrop Y19 Site
Photograph No.: 5 **Date:** 8-09-2016
Direction: Southeast **Photographer:** Ben Castellana
Subject: Stained asphalt in the lot at Concrete Accessories, Inc. The source of the staining is unclear.

Site: Northrop Y19 Site
Photograph No.: 6 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: A closer view of the sump and associated piping from Photo 4.

Site: Northrop Y19 Site
Photograph No.: 7 **Date:** 8-09-2016
Direction: Southwest **Photographer:** Ben Castellana
Subject: The interior of Concrete Accessories, Inc., a machine shop that manufactures threaded parts for concrete reinforcement.

Site: Northrop Y19 Site
Photograph No.: 8 **Date:** 8-09-2016
Direction: East **Photographer:** Ben Castellana
Subject: The interior of Concrete Accessories, Inc., a machine shop that manufactures threaded parts for concrete reinforcement.

Site: Northrop Y19 Site
Photograph No.: 9 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: The interior of Concrete Accessories, Inc., a machine shop that manufactures threaded parts for concrete reinforcement. Note the backfilled cutout in the floor.

Site: Northrop Y19 Site
Photograph No.: 10 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: Abandoned boring in the floor at Atlas Construction Supply, a warehouse business that occupies the southeast corner of the building.

Site: Northrop Y19 Site
Photograph No.: 11 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: The interior of the warehouse at Atlas Construction Supply. The business is completely flow-through, with no manufacturing or mixing of chemicals/product onsite.

Site: Northrop Y19 Site
Photograph No.: 12 **Date:** 8-09-2016
Direction: West **Photographer:** Ben Castellana
Subject: Atlas Construction Supply includes paint and epoxies in their inventory, none of which is manufactured onsite.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 13, 2016

VIA FEDEX

Mr. Ronald R. Iino
Weil & Company, LLP
1925 Century park East, Suite 300
Los Angeles, CA 90067

Subject: Northrop (Y-19)
1401 East Orangethorpe Avenue
Fullerton, CA 92831
CERCLIS EPA ID Number: CAN000900325

Dear Mr. Iino:

The U.S. Environmental Protection Agency (EPA) is conducting a Preliminary Assessment of the subject site pursuant to its response and enforcement responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §9601 et seq. The Preliminary Assessment is being conducted in order to determine if the subject facility could be associated with localized groundwater contamination.

The Preliminary Assessment calls for an EPA Site Assessment Manager, along with a designated field support contractor employed by Weston Solutions, Inc., to collect on-site and off-site photographs and conduct a "site walk" with a site representative. EPA and its representatives (contractors and State) will be conducting the site-walks at various sites in the area on August 4th and 5th. This letter requests that you provide EPA access to your property on one of these two days, depending on our mutual logistical constraints. A specific two hour window for your property will be scheduled with you or your designee and the EPA contracted Project Manager.

The EPA is taking the above action because of its responsibility to respond to contaminated sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Section 9601. Section 104(e)(4)(A) of CERCLA specifically gives EPA a right to access private property, specifically providing that "any officer, employee, or representative is authorized to inspect and obtain samples from any vessel, facility, establishment, or other place or property or from any location of any suspected hazardous

substance or pollutant or contaminant." Failure to grant access to the EPA may result in a civil penalty of up to thirty-seven thousand, five hundred dollars ($37,500.00) per day of denied access.

Please note that sampling will not take place during this visit and will only be conducted if the information collected on the site is not sufficient to complete the Preliminary Assessment Report. If sampling is deemed necessary, EPA will notify you and coordinate the sampling effort with the site owner and/or operator as necessary to ensure that the data can be collected with a minimal impact on facility operations. When the Preliminary Assessment is completed, EPA will provide you with a copy of the Preliminary Assessment Report.

EPA respectfully requests that you sign and date the attached Consent for Access form and mail it using the pre-stamped envelope by July 26, 2016.

If you have any questions regarding the Preliminary Assessment, please contact me at (415) 972-3147 or Hoang.Kim@EPA.GOV, or contact Bethany Dreyfus of our Office of Regional Counsel at (415) 972-3886 or Dreyfus.Bethany@epa.gov. Logistical questions, including specific time and date for the subject visit, should be directed to either me or preferably our contractor designee, Christina Marquis with Weston Solutions at (818) 350-7308 or Christina.Marquis@WestonSolutions.com.

Sincerely,

Kim Hoang
Site Assessment Manager

Encl: Access Agreement w/ stamped envelope

cc: Christina Marquis, Project Manager, Weston Solutions, Inc.
Rafat Abbasi, CA Department of Toxic Substances Control

1925 CENTURY PARK EAST, SUITE 300, LOS ANGELES, CA 90067-2704 / (310) 451-9871 FAX: (310) 394-4512

LASKEY-WEIL CO. LLC
REAL ESTATE INVESTMENTS

July 21, 2016

Ms. Christina Marquis
Project Manager
Weston Solutions, Inc.
3040 Prospect Avenue
La Crescenta, CA 91214

Re: Northrop (Y-19)
1401 East Orangethorpe Avenue, Fullerton, CA 92831
CERCLIS EPA ID Number: CAN000900325

Dear Ms. Marquis:

We are returning the signed "Consent for Access" for the above property per your request. Please note that your letter was addressed to Ronald R. Iino at Weil & Company, LLP. Please note that Mr. Iino is our company's accountant but is not an owner or manager of the property. Please address future correspondence to me, Robert Blonstein, as trustee of the Laskey Family Trust, co-manager of Laskey Weil Co. LLC.

Please contact Jay Waas at 310-451-9871 to schedule your visit to the property. Jay will let the tenants know that you will be there and will also arrange for Mr. Steven Collins of Centec Engineering to meet you at the property and accompany you on the "site walk."

Sincerely,

Robert Blonstein/ac

Robert Blonstein

RB:ac

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

CONSENT FOR ACCESS
Northrop (Y-19) Facility

Property: 1401 East Orangethorpe Avenue
Fullerton, CA 92831
Assessor Parcel Number(s): 073-110-64
EPA ID Number: CAN000900325

I consent to officers, employees, contractors, and authorized representatives of the United States Environmental Protection Agency (EPA) entering and having continued access to the above-referenced Property for a Site-walk with photographs.

I realize that these actions taken by EPA are undertaken pursuant to its response and enforcement responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily, on behalf of myself and all other co-owners of this property, with knowledge of my right to refuse and without threats or promises of any kind.

7/15/16
Date

Signature

Robert Blanton, Manager
Print name, title

Please return this form using the pre-addressed and stamped envelope provided.

Appendix C:
Contact Log
and
Contact Reports

CONTACT LOG

SITE: Northrop (Y-19)
EPA ID: CAN000900325

NAME	AFFILIATION	CONTACT	DATE	INFORMATION
Dawn White	Golden State Water Company	Dawn.White@gswater.com	2/11/2016	See Contact Report 1
Robert C. Baehner	City of Orange	(714) 288-2475	2/25/16	See Contact Report 2

CONTACT REPORT 1

AGENCY/AFFILIATION: Golden State Water Company		
DEPARTMENT: Placentia CSA		
ADDRESS/CITY: 500 Cameron Street, Placentia		
COUNTY/STATE/ZIP: Orange County, California, 92870		
CONTACT(S)	TITLE	EMAIL
Dawn White		Dawn.White@gswater.com
PERSON MAKING CONTACT: Kim Hoang		DATE: 2/11/2016
SUBJECT: Drinking water well information		
SITE NAME: Northrop (Y-19)		EPA ID NO.: CAN000900325

Here is the information using 2015 supply production:

Placentia System			2015 Population	Population by source
	2015 AF	% of Total	46,643	
Bradford #3	270.5	4.5%		2,106
Bradford #4	1,248.5	20.9%		9,710
La Jolla #2	1,093.3	18.3%		8,501
Ruby #1	566.3	9.5%		4,403
Orangethrope #1	130.5	2.2%		1,016
OC #37 (Placentia)	2,434.3	40.7%		18,927
OC #58 (Placentia)	241.6	4.0%		1,878
Sub-Total	5,966.3			46,643

CONTACT REPORT 2

AGENCY/AFFILIATION: City of Orange		
DEPARTMENT: Water Division		
ADDRESS/CITY: 189 South Water Street, Orange		
COUNTY/STATE/ZIP: Orange County, California, 92866		
CONTACT(S)	TITLE	EMAIL
Robert C. Baehner	Assistant Water Manager	bbaehner@cityoforange.org
PERSON MAKING CONTACT: Kim Hoang		DATE: 2/25/2016
SUBJECT: Drinking water well information		
SITE NAME: Northrop (Y-19)		EPA ID NO.: CAN000900325

Current population that we are using is 139,463. There are 15 active wells and one inactive well. The wells provide approximately 71.1% (20,371.7 AF) to the entire system, and imported surface water provides approximately 28.9% (8,271.5 AF) to the entire system.

The percent contributions for the four wells within the target limit are as follows:

Well 8 = 5%
Well 9 = 4%
Well 15 = 4%
Well 21 = 10%

Since the City's water system is almost completely integrated or intertied together, water from these wells could theoretically make it to just about all points in the system over time.

Appendix D:
Transmittal List

TRANSMITTAL LIST

Date: **May 2017**
Site Name: **Northrop (Y-19)**
EPA ID No.: **CAN000900325**

****

A copy of the Preliminary Assessment (PA) report for the above-referenced site should be sent to the following recipients:

Laskey Weil Co., LLC
c/o Robert Blonstein
1925 Century park East, Suite 300
Los Angeles, CA 90067

John Scandura
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630

Nick Amini
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

Dave Mark
Orange County Water District
18700 Ward Street
Fountain Valley, CA 92708

U.S. Environmental Protection Agency, Superfund Records Center
c/o Kim Hoang
USEPA - Superfund Division
75 Hawthorne Street, SFD-6-1
San Francisco, CA 94105

Appendix E:
References

Reference:
Anaheim, 2015

WATER QUALITY REPORT

2015

ANAHEIM

PUBLIC UTILITIES

TABLE OF CONTENTS

LETTER FROM THE GENERAL MANAGER

Dear Anaheim Water Customer:

Each day, Anaheim Public Utilities employees strive to provide you with high quality water, reliable service and competitive rates, which are among the lowest in Orange County. Here in California, we are currently in the fourth year of a severe drought. Although we have invested in regional storage and recycling facilities through our wholesale suppliers, our stored water levels continue to decrease, and the entire state of California has been mandated to conserve water by the Governor. Our target is to reduce water use by 20% across the city. This is achievable if we all do our part to reduce water use in our homes, businesses, and city facilities. Let us help you with rebates for efficient toilets, clothes washers, weather-based timers, rotating nozzles, or turf replacement. Our collective actions today to conserve will help avoid penalties and more dramatic mandates in the future.

Anaheim Public Utilities delivers service to more than 348,000 residents and 15,000 businesses within our 50-square-mile community, conducting more than 44,000 water quality tests throughout the year. We have our own water quality testing laboratory and treatment plant which provides drinking water that meets or surpasses all federal and state standards established by the U.S. Environmental Protection Agency and the State Water Resource Control Board.

The Water Quality Report provides an overview of water quality and the testing results from 2014. If you have any questions about your water quality, please call **714.765.4556** or email **WATERQUALITY@ANAHEIM.NET**. Thank you for allowing Anaheim Public Utilities to provide you with your essential water needs.

DUKKU LEE
General Manager
Anaheim Public Utilities

LET'S DO

OUR PART

Did you know that over half of a household's water use is for outdoor irrigation? Each day, thousands of gallons of water are used for watering lawns and gardens. Anaheim Public Utilities has developed guidelines for reducing water usage by limiting the number of days sprinklers may operate. For more information, visit **WWW.ANAHEIM.NET/SAVEWATER**, or follow us on Facebook.

IN ADDITION TO THE NEW LANDSCAPE WATERING SCHEDULE, THE FOLLOWING MANDATORY WATER CONSERVATION MEASURES ARE IN EFFECT:

1. ADJUST LANDSCAPE WATERING TO ELIMINATE RUNOFF
2. USE A SHUT-OFF NOZZLE WHEN WASHING YOUR VEHICLE
3. USE A BROOM – NOT A HOSE – TO CLEAN DRIVEWAYS & PAVEMENT
4. TURN OFF FOUNTAINS THAT DO NOT USE A RECIRCULATING SYSTEM
5. RESTAURANTS MAY ONLY SERVE AND REFILL WATER, UPON REQUEST
6. HOTELS, MOTELS, AND OTHER COMMERCIAL LODGING ESTABLISHMENTS MUST DISPLAY NOTICES THAT LAUNDERING TOWELS AND LINENS DAILY IS OPTIONAL

WANT TO BE A WATER HERO? YOU CAN SHOW YOUR SUPPORT AND LET YOUR FRIENDS AND NEIGHBORS KNOW THAT YOU'RE DOING YOUR PART. GO TO **WWW.ANAHEIM.NET/SAVEWATER** AND CLICK ON THE WATER PLEDGE LINK, AND GET YOUR VERY OWN LET'S DO OUR PART WATER SAVING KIT* BY SHARING HOW YOU'RE CONSERVING WATER IN YOUR HOME OR BUSINESS. SHARE YOUR IDEAS AND LET OTHERS KNOW HOW THEY CAN SAVE WATER IN ANAHEIM!

*WHILE SUPPLIES LAST

LEARN MORE ABOUT THE DROUGHT HERE

ANAHEIM'S

SOURCES OF SUPPLY

ANAHEIM AND MORE THAN 20 CITIES AND RETAIL WATER DISTRICTS PUMP FROM THE GROUNDWATER BASIN TO PROVIDE WATER TO HOMES AND BUSINESSES.

WATCH HOW WATER GETS TO ANAHEIM

Anaheim's water supply is a blend of groundwater from our own wells, as well as water imported from Northern California and the Colorado River by the Metropolitan Water District of Southern California (MWD). Customers may also receive water from Anaheim's owned and operated Lenain Water Treatment Facility.

The source water for our wells is a natural aquifer that is replenished with water from the Santa Ana River, local rainfall, recycled, and imported water. Managed by the Orange County Water District, the groundwater basin is 350 square miles in area and lies beneath most of northern and central Orange County. Anaheim and more than 20 cities and retail water districts pump from the groundwater basin to provide water to homes and businesses.

BASIC INFORMATION ABOUT DRINKING WATER

The sources of drinking water (both tap water and bottled water) can include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through layers of the ground, it dissolves naturally-occurring minerals and, in some cases, this may include radioactive material, and can pick up substances resulting from the presence of animal or human activity.

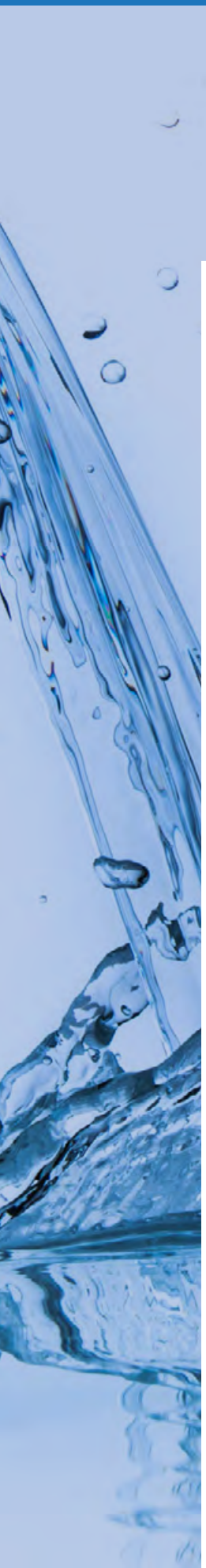
All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resource Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in the water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

More information about contaminants and potential health effects can be obtained at **WATER.EPA.GOV/DRINK** or by calling the U.S. EPA's Safe Drinking Water Hotline at **800.426.4791**.

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff and residential uses
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gasoline stations, urban storm water runoff, agricultural application and septic systems
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production or mining activities



WATER QUALITY INFORMATION

THE EPA WOULD LIKE YOU TO KNOW

ABOUT LEAD IN TAP WATER

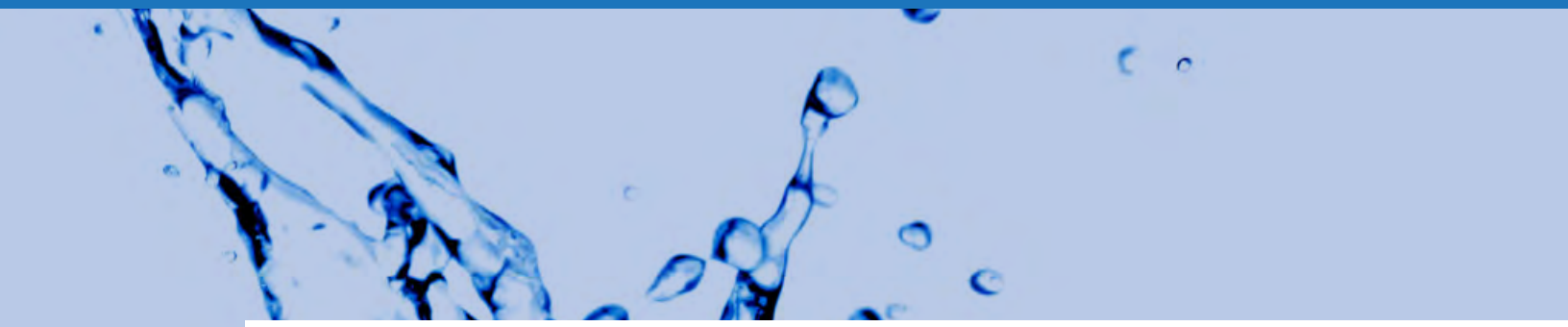
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

Anaheim Public Utilities is responsible for providing high-quality drinking water, but cannot control the variety of materials used in home plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by running your tap for 30 seconds to two minutes before using it for drinking or cooking. If you are concerned about lead in your water, you may want to have it tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the U.S. EPA's Safe Drinking Water Hotline, **800.426.4791**, or online at **EPA.GOV/SAFEWATER/LEAD**.

ANAHEIM PUBLIC UTILITIES IS RESPONSIBLE FOR PROVIDING HIGH-QUALITY DRINKING WATER, BUT CANNOT CONTROL THE VARIETY OF MATERIALS USED IN HOME PLUMBING COMPONENTS.

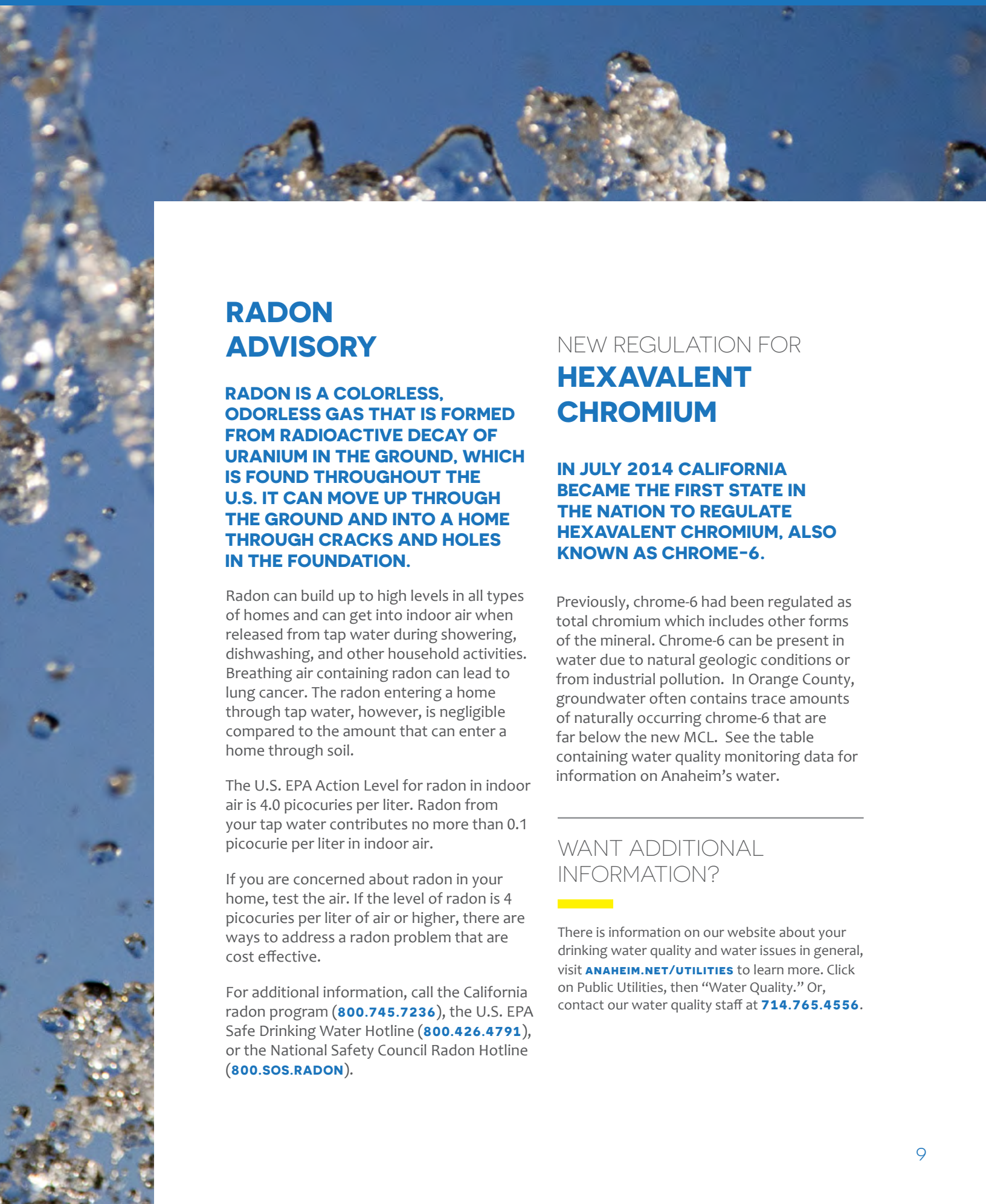


IMMUNO COMPRIMISED PEOPLE

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as persons with cancer undergoing chemo- therapy; those who have undergone organ transplants; those with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections.

These individuals or their caretakers should seek advice about drinking water from their health care providers.

The U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from **WATER.EPA.GOV/DRINK** or the Safe Drinking Water Hotline **800.426.4791**.



RADON ADVISORY

RADON IS A COLORLESS, ODORLESS GAS THAT IS FORMED FROM RADIOACTIVE DECAY OF URANIUM IN THE GROUND, WHICH IS FOUND THROUGHOUT THE U.S. IT CAN MOVE UP THROUGH THE GROUND AND INTO A HOME THROUGH CRACKS AND HOLES IN THE FOUNDATION.

Radon can build up to high levels in all types of homes and can get into indoor air when released from tap water during showering, dishwashing, and other household activities. Breathing air containing radon can lead to lung cancer. The radon entering a home through tap water, however, is negligible compared to the amount that can enter a home through soil.

The U.S. EPA Action Level for radon in indoor air is 4.0 picocuries per liter. Radon from your tap water contributes no more than 0.1 picocurie per liter in indoor air.

If you are concerned about radon in your home, test the air. If the level of radon is 4 picocuries per liter of air or higher, there are ways to address a radon problem that are cost effective.

For additional information, call the California radon program (**800.745.7236**), the U.S. EPA Safe Drinking Water Hotline (**800.426.4791**), or the National Safety Council Radon Hotline (**800.SOS.RADON**).

NEW REGULATION FOR HEXAVALENT CHROMIUM

IN JULY 2014 CALIFORNIA BECAME THE FIRST STATE IN THE NATION TO REGULATE HEXAVALENT CHROMIUM, ALSO KNOWN AS CHROME-6.

Previously, chrome-6 had been regulated as total chromium which includes other forms of the mineral. Chrome-6 can be present in water due to natural geologic conditions or from industrial pollution. In Orange County, groundwater often contains trace amounts of naturally occurring chrome-6 that are far below the new MCL. See the table containing water quality monitoring data for information on Anaheim's water.

WANT ADDITIONAL INFORMATION?

There is information on our website about your drinking water quality and water issues in general, visit **ANAHEIM.NET/UTILITIES** to learn more. Click on Public Utilities, then "Water Quality." Or, contact our water quality staff at **714.765.4556**.

WHAT ARE WATER
QUALITY STANDARDS?

Drinking water standards established by the U.S. EPA and State Water Resource Control Board set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

MAXIMUM CONTAMINENT LEVEL (MCL):

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Levels Goals (MCLGs) as is economically and technologically feasible.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL):

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

NOTIFICATIONS LEVEL (NL):

The level above which a water agency is required to notify its governing body if an unregulated contaminant is found in its drinking water.

PRIMARY DRINKING WATER STANDARD:

MCLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

SECONDARY MCLS

Set to protect the odor, taste, and appearance of drinking water.

REGULATORY ACTION LEVEL (AL):

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

CITY OF ANAHEIM

WATER QUALITY

BASED ON 2014 DATA

Chemical	MCL	PHG (MCLG)	Groundwater Average Amount	Lenain Average Amount	MWD Average Amount	Range of Detections	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals								
Radon (pci/l)	Not Regulated	n/a	311	n/a	ND	ND - 319	2014	Soil Gas from Natural Deposits
Uranium (pci/l)	20	0.43	5.1	4.7	3.0	2.0 - 8.5	2014	Erosion of Natural Deposits
Gross Alpha (pci/l)	15	(0)	<3	ND	ND	ND - 3.8	2014	Erosion of Natural Deposits
Gross Beta (pci/l)	50(a)	(0)	n/a	n/a	5	ND - 6	2014	Decay of Natural or Man-made Deposits
Organic Chemicals								
Trichloroethylene (ppb)	5	1.7	<0.5	ND	ND	ND - 0.7	2014	Industrial Discharge
Inorganic Chemicals								
Aluminum (ppm)	1	0.6	ND	0.17	0.15	ND - 0.31	2014	Water Treatment Chemical
Arsenic (ppb)	10	0.004	<2	ND	ND	ND - 2.0	2014	Erosion of Natural Deposits
Barium (ppm)	1	2	<0.1	0.12	0.11	ND - 0.12	2014	Erosion of Natural Deposits
Chromium, Hexavalent (ppb)	10	0.02	<1	ND	ND	ND - 2.1	2014	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.44	0.33	0.8	0.29 - 1.0	2014	Erosion of Natural Deposits, Water Additive
Nitrate as NO3 (ppm)	45	45	12	ND	ND	ND - 19	2014	Fertilizers, Septic Tanks
Nitrate+Nitrite as N (ppm)	10	10	2.8	ND	ND	ND - 4.3	2014	Fertilizers, Septic Tanks
Secondary Standards*								
Aluminum (ppb)	200*	600	ND	170	150	ND - 310	2014	Water Treatment Chemical
Chloride (ppm)	500*	n/a	85	82	90	46 - 115	2014	Erosion of Natural Deposits
Color (units)	15*	n/a	ND	ND	1	ND - 1	2014	Natural Organic Materials
Odor (threshold odor number)	3*	n/a	ND	ND	2	ND - 2	2014	Naturally-occurring Organic Materials
Specific Conductance (mho/cm)	1,600*	n/a	900	919	984	654 - 1060	2014	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	139	210	232	103 - 241	2014	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	562	600	625	444 - 651	2014	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	0.06	0.04	ND	ND - 0.20	2014	Erosion of Natural Deposits
Unregulated Contaminants Requiring Monitoring								
Bicarbonate (as HCO3) (ppm)	Not Regulated	n/a	228	140	n/a	140 - 258	2014	Erosion of Natural Deposits
Boron (ppb)	NL=1,000	n/a	140	100	105	ND - 240	2014	Erosion of Natural Deposits

CITY OF ANAHEIM

WATER QUALITY

BASED ON 2014 DATA

Chemical	MCL	PHG (MCLG)	Groundwater Average Amount	Lenain Average Amount	MWD Average Amount	Range of Detections	Most Recent Sampling Date	Typical Source of Contaminant
Chromium, Total (ppb) (b)	50	n/a	n/a	<0.2	<0.2	ND - 0.5	2014	Erosion of Natural Deposits
Chromium, Hexavalent (ppb) (b)	10	0.02	n/a	0.03	0.04	ND - 2.1	2014	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	98	64	73	51 - 110	2014	Erosion of Natural Deposits
Dichlorodifluoromethane (ppb)	NL=1,000	n/a	<0.5	ND	ND	ND - 1.5	2014	Industrial Waste Discharge
Magnesium (ppm)	Not Regulated	n/a	18	26	26	16 - 27	2014	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	7.9	7.6	8.1	7.3 - 8.1	2014	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	4.1	4.4	4.6	3.3 - 4.9	2014	Erosion of Natural Deposits
Total Alkalinity (ppm as CaCO3)	Not Regulated	n/a	187	120	126	109 - 212	2014	Erosion of Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	19	16	17	14 - 21	2014	Erosion of Natural Deposits
Total Hardness (ppm as CaCO3)	Not Regulated	n/a	319	274	288	240 - 351	2014	Erosion of Natural Deposits
Total Organic Carbon (ppm)	Not Regulated	TT	0.32	2.4	2.6	ND - 2.9	2013	Various Natural and Man-made Sources
Chlorate (ppb)	NL = 800	n/a	n/a	222	124	21 - 380	2014	Byproduct of chlorine disinfection
Molybdenum (ppb)	Not Regulated	n/a	n/a	4.7	5.0	4.4 - 6.1	2014	Erosion of Natural Deposits
Strontium (ppb)	Not Regulated	n/a	n/a	1038	986	854 - 1120	2014	Erosion of Natural Deposits
Vanadium (ppb)	NL=50	n/a	4.1	2.5	2.6	2.2 - 5.6	2014	Erosion of Natural Deposits

ppm = Parts-per-million; **ppb** = parts-per-billion; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **NL** = notification level; **n/a** = not applicable
ND = Not detected; < = average is less than the detection limit for reporting purposes; **MCL** = Maximum Contaminant Level; **MCLG** = federal MCL Goal; **PHG** = California Public Health Goal
mho/cm = Micromho per centimeter; **TT** = treatment technique; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).
(a) Gross Beta MCL = The State Board considers 50 pCi/L to be the level of concern. The official MCL is "4 millirem/year annual dose equivalent to the total body or any internal organ."
(b) UCMR3 (Federal Unregulated Contaminant Monitoring Rule / Phase 3) = Detection/reporting levels are much lower than current California regulatory detection/reporting level standards.

Turbidity – Treatment Plant Combined Filter Effluent	Treatment Technique	Turbidity Measurements	Sample Date	Typical Source of Contaminant
1 Highest single turbidity measurement	1 NTU	Lenain = 0.11 NTU	2014	Soil run-off
	1 NTU	MWD = 0.06 NTU	2014	Soil run-off
2 Percentage of samples less than 0.3 NTU	95%	Lenain = 100%	2014	Soil run-off
	95%	MWD = 100%	2014	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in the City of Anaheim's and Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique." A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

CITY OF ANAHEIM

WATER QUALITY

BASED ON 2014 DATA

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	Highest LRAA = 63	15 - 74	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	Highest LRAA = 16	2.4 - 20	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	0.9	0.1 - 2.7	Disinfectant Added for Treatment
Aesthetic Quality				
Color (color units)	15*	ND	ND - 2	Erosion of Natural Deposits
Odor (threshold odor number)	3*	ND	ND - 1	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.11	0.05 - 0.64	Erosion of Natural Deposits

Total trihalomethanes and haloacetic acids are tested quarterly at 12 locations. Chlorine residual disinfectant levels are tested weekly at 51 locations. Color, odor, and turbidity are tested quarterly at 11 locations. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; LRAA = Locational Running Annual Average; ND = not detected; ntu = nephelometric turbidity units; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (color, odor, clarity).

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	Typical Source of Contaminant
Lead (ppb)	15	0.2	ND<5	0 / 55	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.17	0 / 55	Corrosion of Household Plumbing

Every three years, at least 50 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2012. Lead was detected in 3 samples; none exceeded the action level. Copper was detected in 27 samples; none exceeded the action level. The regulatory action level is the concentration which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.

The City of Anaheim complied with the lead and copper action levels.

WHAT IS A

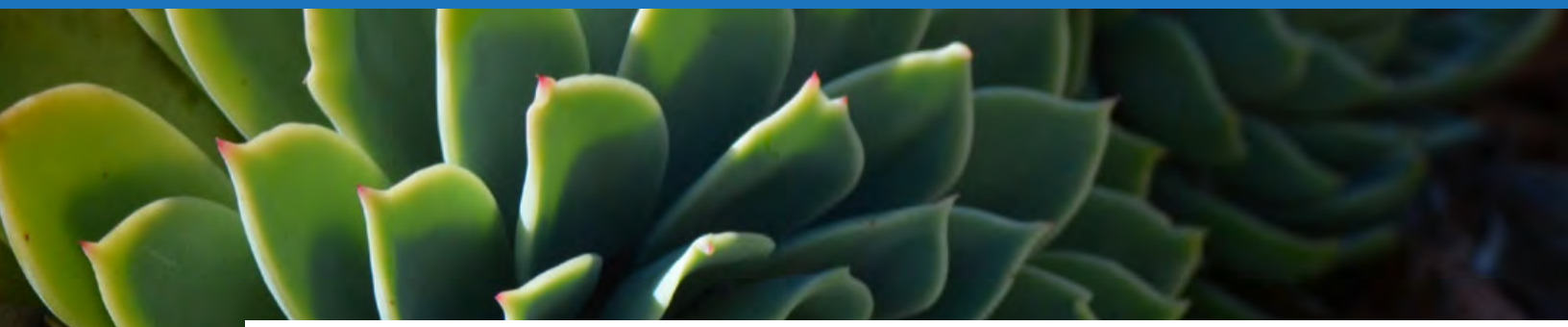
WATER QUALITY GOAL?

IN ADDITION TO MANDATORY WATER QUALITY STANDARDS, U.S. EPA AND CAL/EPA HAVE SET VOLUNTARY WATER QUALITY GOALS FOR SOME CONTAMINANTS. THE CHART IN THIS REPORT INCLUDES THREE TYPES OF WATER QUALITY GOALS:

1. MAXIMUM CONTAMINANT LEVEL GOAL (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by U.S. EPA.

2. MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

3. PUBLIC HEALTH GOAL (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.



SOURCE WATER ASSESSMENTS

IMPORTED WATER ASSESSMENT

The Metropolitan Water District of Southern California (MWD,) updated its source water assessment of the Colorado River and State Water Project supplies in 2012. Colorado River supplies are considered to be most vulnerable to recreation contamination, urban/storm water runoff, increasing urbanization, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone, at **213.217.6850**.

GROUND WATER ASSESSMENT

Anaheim has completed source water assessments of areas around each well and around the Walnut Canyon Reservoir, which provides imported water to the Lenain Water Treatment Facility. As in any urban area, Orange County's groundwater is considered potentially vulnerable to contamination from sources such as gas stations, dry cleaners, and industrial activities. To help prevent surface contamination of our wells, we seal the upper 400 to 500 feet of the well casing.

A copy of the complete assessment is available at the State Water Resources Control Board, Division of Drinking Water, 605 W. Santa Ana Boulevard, Building 28, Santa Ana, CA 92701. You may request a summary of the assessment by contacting the DPH Sanitary Engineer at **714.547.0430** or Anaheim's Environmental Services Division at **714.765.4277**.

CITY COUNCIL
PUBLIC UTILITIES BOARD

CITY COUNCIL

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Lucille Kring, Mayor Pro Tem
Kris Murray, Council Member
Jordan Brandman, Council Member
James Vanderbilt, Council Member

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Dukku Lee, Public Utilities General Manager

CONTACT

QUESTIONS ABOUT YOUR WATER? CONTACT US FOR ANSWERS

For information about this report or your water quality in general, please contact our Water Quality Laboratory at **714.765.4556**, or e-mail us at **waterquality@anaheim.net**. You may also address water quality and other utility issues by attending a Public Utilities Board meeting scheduled for 5 p.m. on the fourth Wednesday of each month, at Anaheim West Tower, 11th Floor Conference Room, Anaheim, California.

Contact the U.S. Environmental Protection Agency to learn more about the potential health effects of contaminants listed in this report, visit **water.epa.gov/drink** or call hotline at **800.426.4791.**

We comply with the *Americans with Disabilities Act*.

For this information in other formats, contact: **714.765.3300**, TTY **714.765.5125** or visit **anaheim.net/utilities**.

Este informe contiene informacion importante acerca del agua potable de Anaheim.
Para obtener un informe de la calidad del agua en espanol, llame por favor al 765-4151.
Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.
此份有关你的食水报告,内有重要资料和讯息,请找 他人为你翻译及解释清楚。
Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.
이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

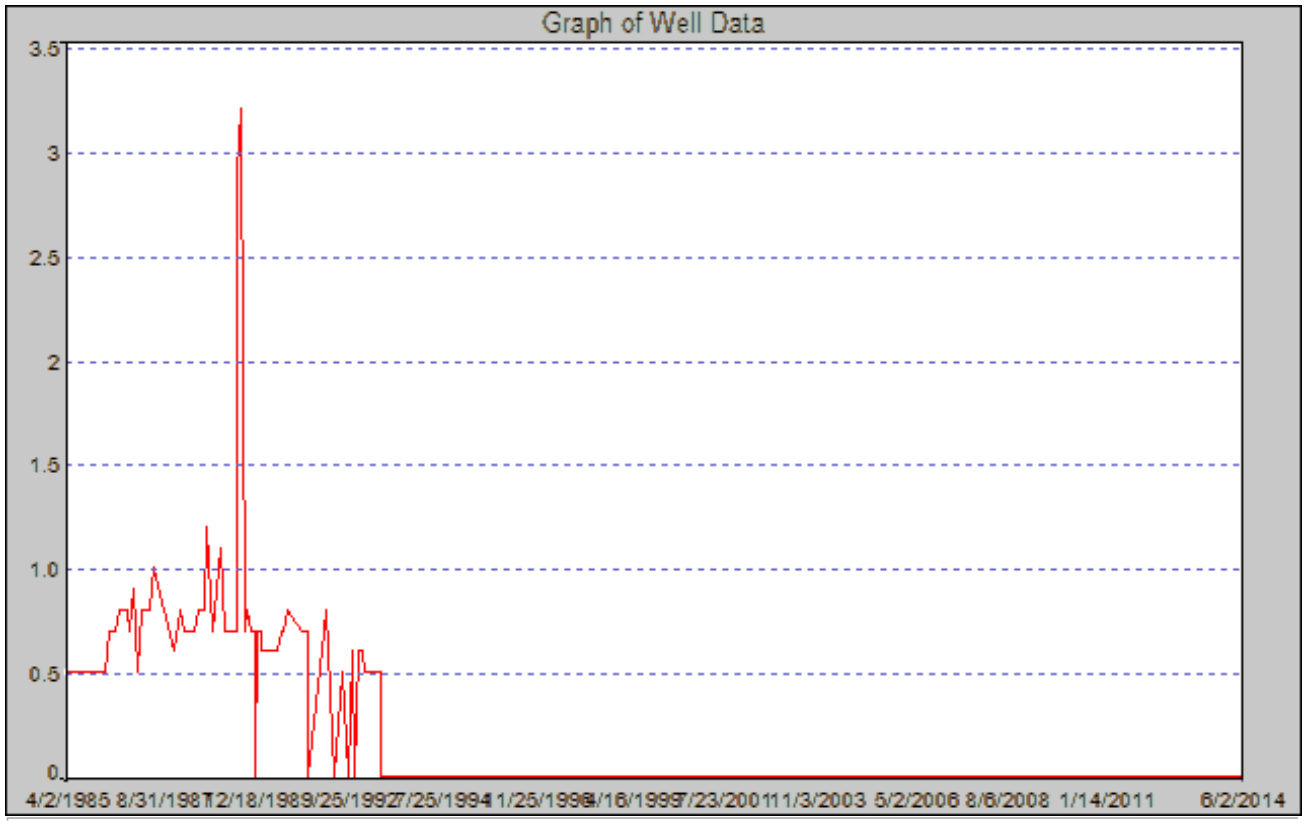
Reference:
CDPH, 2014a

Well Data Graph

CITY OF FULLERTON (FULLERTON)
KIMBERLY 02
303 W. Commonwealth
FULLERTON , CA 92832832

State Well #: 3010010-007
Well Source: Groundwater
Well Status: Active Raw

Well Details | Geographic Information | CDPH Water Quality Data | PWS Detailed Information



DATE	PARAMETER	RESULT	UNITS	MCL
6/2/2014	TRICHLOROETHYLENE	. 0	UG/L	5
2/11/2014	TRICHLOROETHYLENE	. 0	UG/L	5
11/7/2013	TRICHLOROETHYLENE	0	UG/L	5
8/13/2013	TRICHLOROETHYLENE	0	UG/L	5
5/8/2013	TRICHLOROETHYLENE	0	UG/L	5
2/13/2013	TRICHLOROETHYLENE	0	UG/L	5
10/29/2012	TRICHLOROETHYLENE	0	UG/L	5
8/15/2012	TRICHLOROETHYLENE	0	UG/L	5
5/16/2012	TRICHLOROETHYLENE	0	UG/L	5
2/21/2012	TRICHLOROETHYLENE	0	UG/L	5
11/7/2011	TRICHLOROETHYLENE	0	UG/L	5
8/1/2011	TRICHLOROETHYLENE	0	UG/L	5
5/19/2011	TRICHLOROETHYLENE	0	UG/L	5
3/1/2011	TRICHLOROETHYLENE	0	UG/L	5
1/14/2011	TRICHLOROETHYLENE	0	UG/L	5
8/25/2010	TRICHLOROETHYLENE	0	UG/L	5
6/1/2010	TRICHLOROETHYLENE	0	UG/L	5
3/1/2010	TRICHLOROETHYLENE	0	UG/L	5
11/3/2009	TRICHLOROETHYLENE	0	UG/L	5
8/5/2009	TRICHLOROETHYLENE	0	UG/L	5
5/5/2009	TRICHLOROETHYLENE	0	UG/L	5
2/4/2009	TRICHLOROETHYLENE	0	UG/L	5
11/4/2008	TRICHLOROETHYLENE	0	UG/L	5
8/6/2008	TRICHLOROETHYLENE	0	UG/L	5
5/5/2008	TRICHLOROETHYLENE	0	UG/L	5
2/5/2008	TRICHLOROETHYLENE	0	UG/L	5
11/6/2007	TRICHLOROETHYLENE	0	UG/L	5
8/1/2007	TRICHLOROETHYLENE	0	UG/L	5
5/8/2007	TRICHLOROETHYLENE	0	UG/L	5
2/14/2007	TRICHLOROETHYLENE	0	UG/L	5
11/6/2006	TRICHLOROETHYLENE	0	UG/L	5
8/3/2006	TRICHLOROETHYLENE	0	UG/L	5
5/2/2006	TRICHLOROETHYLENE	0	UG/L	5

2/6/2006	TRICHLOROETHYLENE	0	UG/L	5
11/2/2005	TRICHLOROETHYLENE	0	UG/L	5
8/1/2005	TRICHLOROETHYLENE	0	UG/L	5
7/5/2005	TRICHLOROETHYLENE	0	UG/L	5
6/6/2005	TRICHLOROETHYLENE	0	UG/L	5
5/2/2005	TRICHLOROETHYLENE	0	UG/L	5
4/4/2005	TRICHLOROETHYLENE	0	UG/L	5
3/7/2005	TRICHLOROETHYLENE	0	UG/L	5
2/1/2005	TRICHLOROETHYLENE	0	UG/L	5
11/8/2004	TRICHLOROETHYLENE	0	UG/L	5
10/4/2004	TRICHLOROETHYLENE	0	UG/L	5
9/7/2004	TRICHLOROETHYLENE	0	UG/L	5
8/2/2004	TRICHLOROETHYLENE	0	UG/L	5
7/6/2004	TRICHLOROETHYLENE	0	UG/L	5
6/1/2004	TRICHLOROETHYLENE	0	UG/L	5
5/3/2004	TRICHLOROETHYLENE	0	UG/L	5
4/5/2004	TRICHLOROETHYLENE	0	UG/L	5
3/1/2004	TRICHLOROETHYLENE	0	UG/L	5
2/3/2004	TRICHLOROETHYLENE	0	UG/L	5
1/5/2004	TRICHLOROETHYLENE	0	UG/L	5
12/1/2003	TRICHLOROETHYLENE	0	UG/L	5
11/3/2003	TRICHLOROETHYLENE	0	UG/L	5
10/6/2003	TRICHLOROETHYLENE	0	UG/L	5
9/2/2003	TRICHLOROETHYLENE	0	UG/L	5
8/4/2003	TRICHLOROETHYLENE	0	UG/L	5
7/24/2003	TRICHLOROETHYLENE	0	UG/L	5
3/24/2003	TRICHLOROETHYLENE	0	UG/L	5
3/3/2003	TRICHLOROETHYLENE	0	UG/L	5
2/18/2003	TRICHLOROETHYLENE	0	UG/L	5
2/10/2003	TRICHLOROETHYLENE	0	UG/L	5
2/3/2003	TRICHLOROETHYLENE	0	UG/L	5
11/25/2002	TRICHLOROETHYLENE	0	UG/L	5
11/18/2002	TRICHLOROETHYLENE	0	UG/L	5
11/12/2002	TRICHLOROETHYLENE	0	UG/L	5
11/4/2002	TRICHLOROETHYLENE	0	UG/L	5
10/28/2002	TRICHLOROETHYLENE	0	UG/L	5
10/21/2002	TRICHLOROETHYLENE	0	UG/L	5
10/14/2002	TRICHLOROETHYLENE	0	UG/L	5
10/7/2002	TRICHLOROETHYLENE	0	UG/L	5
9/30/2002	TRICHLOROETHYLENE	0	UG/L	5
9/23/2002	TRICHLOROETHYLENE	0	UG/L	5
9/16/2002	TRICHLOROETHYLENE	0	UG/L	5
9/9/2002	TRICHLOROETHYLENE	0	UG/L	5
9/3/2002	TRICHLOROETHYLENE	0	UG/L	5
8/26/2002	TRICHLOROETHYLENE	0	UG/L	5
8/19/2002	TRICHLOROETHYLENE	0	UG/L	5
8/12/2002	TRICHLOROETHYLENE	0	UG/L	5
7/29/2002	TRICHLOROETHYLENE	0	UG/L	5
7/22/2002	TRICHLOROETHYLENE	0	UG/L	5
7/15/2002	TRICHLOROETHYLENE	0	UG/L	5
7/10/2002	TRICHLOROETHYLENE	0	UG/L	5
7/8/2002	TRICHLOROETHYLENE	0	UG/L	5
7/1/2002	TRICHLOROETHYLENE	0	UG/L	5
6/24/2002	TRICHLOROETHYLENE	0	UG/L	5
6/17/2002	TRICHLOROETHYLENE	0	UG/L	5
6/10/2002	TRICHLOROETHYLENE	0	UG/L	5
6/3/2002	TRICHLOROETHYLENE	0	UG/L	5
5/28/2002	TRICHLOROETHYLENE	0	UG/L	5
5/20/2002	TRICHLOROETHYLENE	0	UG/L	5
5/14/2002	TRICHLOROETHYLENE	0	UG/L	5
5/6/2002	TRICHLOROETHYLENE	0	UG/L	5
4/29/2002	TRICHLOROETHYLENE	0	UG/L	5
4/22/2002	TRICHLOROETHYLENE	0	UG/L	5
4/15/2002	TRICHLOROETHYLENE	0	UG/L	5
4/8/2002	TRICHLOROETHYLENE	0	UG/L	5
4/1/2002	TRICHLOROETHYLENE	0	UG/L	5
3/25/2002	TRICHLOROETHYLENE	0	UG/L	5
3/18/2002	TRICHLOROETHYLENE	0	UG/L	5
3/11/2002	TRICHLOROETHYLENE	0	UG/L	5
3/4/2002	TRICHLOROETHYLENE	0	UG/L	5
2/25/2002	TRICHLOROETHYLENE	0	UG/L	5
2/19/2002	TRICHLOROETHYLENE	0	UG/L	5
2/11/2002	TRICHLOROETHYLENE	0	UG/L	5
2/6/2002	TRICHLOROETHYLENE	0	UG/L	5
2/4/2002	TRICHLOROETHYLENE	0	UG/L	5
1/28/2002	TRICHLOROETHYLENE	0	UG/L	5
1/21/2002	TRICHLOROETHYLENE	0	UG/L	5
1/14/2002	TRICHLOROETHYLENE	0	UG/L	5
1/11/2002	TRICHLOROETHYLENE	0	UG/L	5
1/7/2002	TRICHLOROETHYLENE	0	UG/L	5
12/17/2001	TRICHLOROETHYLENE	0	UG/L	5
12/10/2001	TRICHLOROETHYLENE	0	UG/L	5
12/3/2001	TRICHLOROETHYLENE	0	UG/L	5

11/26/2001	TRICHLOROETHYLENE	0	UG/L	5
11/19/2001	TRICHLOROETHYLENE	0	UG/L	5
11/13/2001	TRICHLOROETHYLENE	0	UG/L	5
11/5/2001	TRICHLOROETHYLENE	0	UG/L	5
10/29/2001	TRICHLOROETHYLENE	0	UG/L	5
10/24/2001	TRICHLOROETHYLENE	0	UG/L	5
10/22/2001	TRICHLOROETHYLENE	0	UG/L	5
10/15/2001	TRICHLOROETHYLENE	0	UG/L	5
10/8/2001	TRICHLOROETHYLENE	0	UG/L	5
10/1/2001	TRICHLOROETHYLENE	0	UG/L	5
9/24/2001	TRICHLOROETHYLENE	0	UG/L	5
9/17/2001	TRICHLOROETHYLENE	0	UG/L	5
9/10/2001	TRICHLOROETHYLENE	0	UG/L	5
9/4/2001	TRICHLOROETHYLENE	0	UG/L	5
8/27/2001	TRICHLOROETHYLENE	0	UG/L	5
8/20/2001	TRICHLOROETHYLENE	0	UG/L	5
8/13/2001	TRICHLOROETHYLENE	0	UG/L	5
7/30/2001	TRICHLOROETHYLENE	0	UG/L	5
7/23/2001	TRICHLOROETHYLENE	0	UG/L	5
7/19/2001	TRICHLOROETHYLENE	0	UG/L	5
7/16/2001	TRICHLOROETHYLENE	0	UG/L	5
7/9/2001	TRICHLOROETHYLENE	0	UG/L	5
7/2/2001	TRICHLOROETHYLENE	0	UG/L	5
6/25/2001	TRICHLOROETHYLENE	0	UG/L	5
6/18/2001	TRICHLOROETHYLENE	0	UG/L	5
6/11/2001	TRICHLOROETHYLENE	0	UG/L	5
6/4/2001	TRICHLOROETHYLENE	0	UG/L	5
5/21/2001	TRICHLOROETHYLENE	0	UG/L	5
5/14/2001	TRICHLOROETHYLENE	0	UG/L	5
5/7/2001	TRICHLOROETHYLENE	0	UG/L	5
4/30/2001	TRICHLOROETHYLENE	0	UG/L	5
4/26/2001	TRICHLOROETHYLENE	0	UG/L	5
4/23/2001	TRICHLOROETHYLENE	0	UG/L	5
4/16/2001	TRICHLOROETHYLENE	0	UG/L	5
4/9/2001	TRICHLOROETHYLENE	0	UG/L	5
4/2/2001	TRICHLOROETHYLENE	0	UG/L	5
3/26/2001	TRICHLOROETHYLENE	0	UG/L	5
3/19/2001	TRICHLOROETHYLENE	0	UG/L	5
3/12/2001	TRICHLOROETHYLENE	0	UG/L	5
3/5/2001	TRICHLOROETHYLENE	0	UG/L	5
2/26/2001	TRICHLOROETHYLENE	0	UG/L	5
2/20/2001	TRICHLOROETHYLENE	0	UG/L	5
2/14/2001	TRICHLOROETHYLENE	0	UG/L	5
2/14/2001	TRICHLOROETHYLENE	0	UG/L	5
2/12/2001	TRICHLOROETHYLENE	0	UG/L	5
2/5/2001	TRICHLOROETHYLENE	0	UG/L	5
1/31/2001	TRICHLOROETHYLENE	0	UG/L	5
1/29/2001	TRICHLOROETHYLENE	0	UG/L	5
1/22/2001	TRICHLOROETHYLENE	0	UG/L	5
1/15/2001	TRICHLOROETHYLENE	0	UG/L	5
1/8/2001	TRICHLOROETHYLENE	0	UG/L	5
12/18/2000	TRICHLOROETHYLENE	0	UG/L	5
12/11/2000	TRICHLOROETHYLENE	0	UG/L	5
12/4/2000	TRICHLOROETHYLENE	0	UG/L	5
11/20/2000	TRICHLOROETHYLENE	0	UG/L	5
11/13/2000	TRICHLOROETHYLENE	0	UG/L	5
11/6/2000	TRICHLOROETHYLENE	0	UG/L	5
10/30/2000	TRICHLOROETHYLENE	0	UG/L	5
10/16/2000	TRICHLOROETHYLENE	0	UG/L	5
10/9/2000	TRICHLOROETHYLENE	0	UG/L	5
10/2/2000	TRICHLOROETHYLENE	0	UG/L	5
9/25/2000	TRICHLOROETHYLENE	0	UG/L	5
9/11/2000	TRICHLOROETHYLENE	0	UG/L	5
9/5/2000	TRICHLOROETHYLENE	0	UG/L	5
8/30/2000	TRICHLOROETHYLENE	0	UG/L	5
5/23/2000	TRICHLOROETHYLENE	0	UG/L	5
3/27/2000	TRICHLOROETHYLENE	0	UG/L	5
2/23/2000	TRICHLOROETHYLENE	0	UG/L	5
12/7/1999	TRICHLOROETHYLENE	0	UG/L	5
8/24/1999	TRICHLOROETHYLENE	0	UG/L	5
7/26/1999	TRICHLOROETHYLENE	0	UG/L	5
4/26/1999	TRICHLOROETHYLENE	0	UG/L	5
4/16/1999	TRICHLOROETHYLENE	0	UG/L	5
1/25/1999	TRICHLOROETHYLENE	0	UG/L	5
12/9/1998	TRICHLOROETHYLENE	0	UG/L	5
10/26/1998	TRICHLOROETHYLENE	0	UG/L	5
9/28/1998	TRICHLOROETHYLENE	0	UG/L	5
8/31/1998	TRICHLOROETHYLENE	0	UG/L	5
7/27/1998	TRICHLOROETHYLENE	0	UG/L	5
6/29/1998	TRICHLOROETHYLENE	0	UG/L	5
5/28/1998	TRICHLOROETHYLENE	0	UG/L	5
4/27/1998	TRICHLOROETHYLENE	0	UG/L	5
3/30/1998	TRICHLOROETHYLENE	0	UG/L	5

1/26/1998	TRICHLOROETHYLENE	0	UG/L	5
11/25/1997	TRICHLOROETHYLENE	0	UG/L	5
10/27/1997	TRICHLOROETHYLENE	0	UG/L	5
9/29/1997	TRICHLOROETHYLENE	0	UG/L	5
8/25/1997	TRICHLOROETHYLENE	0	UG/L	5
7/28/1997	TRICHLOROETHYLENE	0	UG/L	5
6/30/1997	TRICHLOROETHYLENE	0	UG/L	5
5/27/1997	TRICHLOROETHYLENE	0	UG/L	5
4/28/1997	TRICHLOROETHYLENE	0	UG/L	5
3/31/1997	TRICHLOROETHYLENE	0	UG/L	5
2/24/1997	TRICHLOROETHYLENE	0	UG/L	5
1/27/1997	TRICHLOROETHYLENE	0	UG/L	5
11/25/1996	TRICHLOROETHYLENE	0	UG/L	5
10/28/1996	TRICHLOROETHYLENE	0	UG/L	5
9/30/1996	TRICHLOROETHYLENE	0	UG/L	5
8/26/1996	TRICHLOROETHYLENE	0	UG/L	5
7/29/1996	TRICHLOROETHYLENE	0	UG/L	5
4/24/1996	TRICHLOROETHYLENE	0	UG/L	5
3/25/1996	TRICHLOROETHYLENE	0	UG/L	5
2/27/1996	TRICHLOROETHYLENE	0	UG/L	5
1/29/1996	TRICHLOROETHYLENE	0	UG/L	5
1/2/1996	TRICHLOROETHYLENE	0	UG/L	5
11/27/1995	TRICHLOROETHYLENE	0	UG/L	5
10/30/1995	TRICHLOROETHYLENE	0	UG/L	5
9/25/1995	TRICHLOROETHYLENE	0	UG/L	5
8/28/1995	TRICHLOROETHYLENE	0	UG/L	5
7/31/1995	TRICHLOROETHYLENE	0	UG/L	5
6/26/1995	TRICHLOROETHYLENE	0	UG/L	5
5/30/1995	TRICHLOROETHYLENE	0	UG/L	5
3/27/1995	TRICHLOROETHYLENE	0	UG/L	5
2/28/1995	TRICHLOROETHYLENE	0	UG/L	5
1/11/1995	TRICHLOROETHYLENE	0	UG/L	5
11/28/1994	TRICHLOROETHYLENE	0	UG/L	5
10/31/1994	TRICHLOROETHYLENE	0	UG/L	5
9/26/1994	TRICHLOROETHYLENE	0	UG/L	5
7/25/1994	TRICHLOROETHYLENE	0	UG/L	5
4/26/1994	TRICHLOROETHYLENE	0	UG/L	5
3/28/1994	TRICHLOROETHYLENE	0	UG/L	5
2/28/1994	TRICHLOROETHYLENE	0	UG/L	5
1/31/1994	TRICHLOROETHYLENE	0	UG/L	5
12/29/1993	TRICHLOROETHYLENE	0	UG/L	5
10/25/1993	TRICHLOROETHYLENE	0	UG/L	5
8/30/1993	TRICHLOROETHYLENE	0	UG/L	5
4/26/1993	TRICHLOROETHYLENE	0	UG/L	5
3/29/1993	TRICHLOROETHYLENE	0	UG/L	5
2/22/1993	TRICHLOROETHYLENE	0	UG/L	5
1/25/1993	TRICHLOROETHYLENE	0	UG/L	5
1/21/1993	TRICHLOROETHYLENE	0.5	UG/L	5
10/26/1992	TRICHLOROETHYLENE	0.5	UG/L	5
9/28/1992	TRICHLOROETHYLENE	0.5	UG/L	5
8/31/1992	TRICHLOROETHYLENE	0.5	UG/L	5
7/27/1992	TRICHLOROETHYLENE	0.6	UG/L	5
6/29/1992	TRICHLOROETHYLENE	0.6	UG/L	5
5/26/1992	TRICHLOROETHYLENE	0	UG/L	5
4/28/1992	TRICHLOROETHYLENE	0.6	UG/L	5
3/30/1992	TRICHLOROETHYLENE	0	UG/L	5
3/25/1992	TRICHLOROETHYLENE	0	UG/L	5
1/27/1992	TRICHLOROETHYLENE	0.5	UG/L	5
11/25/1991	TRICHLOROETHYLENE	0	UG/L	5
9/30/1991	TRICHLOROETHYLENE	0.6	UG/L	5
9/4/1991	TRICHLOROETHYLENE	0.8	UG/L	5
8/26/1991	TRICHLOROETHYLENE	0.7	UG/L	5
4/4/1991	TRICHLOROETHYLENE	0	UG/L	5
4/1/1991	TRICHLOROETHYLENE	0.7	UG/L	5
1/28/1991	TRICHLOROETHYLENE	0.7	UG/L	5
9/24/1990	TRICHLOROETHYLENE	0.8	UG/L	5
8/27/1990	TRICHLOROETHYLENE	0.7	UG/L	5
7/30/1990	TRICHLOROETHYLENE	0.7	UG/L	5
6/25/1990	TRICHLOROETHYLENE	0.6	UG/L	5
5/29/1990	TRICHLOROETHYLENE	0.6	UG/L	5
4/30/1990	TRICHLOROETHYLENE	0.6	UG/L	5
2/26/1990	TRICHLOROETHYLENE	0.6	UG/L	5
2/5/1990	TRICHLOROETHYLENE	0.6	UG/L	5
1/30/1990	TRICHLOROETHYLENE	0.7	UG/L	5
12/18/1989	TRICHLOROETHYLENE	0.7	UG/L	5
12/4/1989	TRICHLOROETHYLENE	0	UG/L	5
12/1/1989	TRICHLOROETHYLENE	0.7	UG/L	5
11/27/1989	TRICHLOROETHYLENE	0.7	UG/L	5
10/30/1989	TRICHLOROETHYLENE	0.7	UG/L	5
9/25/1989	TRICHLOROETHYLENE	0.8	UG/L	5
8/28/1989	TRICHLOROETHYLENE	0.7	UG/L	5
7/31/1989	TRICHLOROETHYLENE	3.2	UG/L	5
6/26/1989	TRICHLOROETHYLENE	2.9	UG/L	5

6/21/1989	TRICHLOROETHYLENE	0.7	UG/L	5
5/30/1989	TRICHLOROETHYLENE	0.7	UG/L	5
3/28/1989	TRICHLOROETHYLENE	0.7	UG/L	5
2/28/1989	TRICHLOROETHYLENE	0.7	UG/L	5
1/30/1989	TRICHLOROETHYLENE	1.1	UG/L	5
11/9/1988	TRICHLOROETHYLENE	0.7	UG/L	5
9/26/1988	TRICHLOROETHYLENE	1.2	UG/L	5
8/29/1988	TRICHLOROETHYLENE	0.8	UG/L	5
7/25/1988	TRICHLOROETHYLENE	0.8	UG/L	5
7/5/1988	TRICHLOROETHYLENE	0.8	UG/L	5
5/31/1988	TRICHLOROETHYLENE	0.7	UG/L	5
4/25/1988	TRICHLOROETHYLENE	0.7	UG/L	5
3/28/1988	TRICHLOROETHYLENE	0.7	UG/L	5
2/29/1988	TRICHLOROETHYLENE	0.7	UG/L	5
2/23/1988	TRICHLOROETHYLENE	0.7	UG/L	5
1/25/1988	TRICHLOROETHYLENE	0.8	UG/L	5
11/30/1987	TRICHLOROETHYLENE	0.6	UG/L	5
8/31/1987	TRICHLOROETHYLENE	0.8	UG/L	5
5/26/1987	TRICHLOROETHYLENE	1	UG/L	5
4/27/1987	TRICHLOROETHYLENE	0.8	UG/L	5
3/30/1987	TRICHLOROETHYLENE	0.8	UG/L	5
2/23/1987	TRICHLOROETHYLENE	0.8	UG/L	5
2/2/1987	TRICHLOROETHYLENE	0.8	UG/L	5
12/29/1986	TRICHLOROETHYLENE	< 0.5	UG/L	5
11/24/1986	TRICHLOROETHYLENE	0.9	UG/L	5
10/27/1986	TRICHLOROETHYLENE	0.7	UG/L	5
9/29/1986	TRICHLOROETHYLENE	0.8	UG/L	5
8/25/1986	TRICHLOROETHYLENE	0.8	UG/L	5
7/28/1986	TRICHLOROETHYLENE	0.8	UG/L	5
6/25/1986	TRICHLOROETHYLENE	0.7	UG/L	5
5/28/1986	TRICHLOROETHYLENE	0.7	UG/L	5
4/30/1986	TRICHLOROETHYLENE	0.7	UG/L	5
3/19/1986	TRICHLOROETHYLENE	< 0.5	UG/L	5
3/12/1986	TRICHLOROETHYLENE	< 0.5	UG/L	5
1/20/1986	TRICHLOROETHYLENE	< 0.5	UG/L	5
4/2/1985	TRICHLOROETHYLENE	< 0.5	UG/L	5

FROM DATE: **TO DATE:** **GRAPH SIZE** **NORMALIZED**

Medium Redraw

ENVIROSTOR HOME | PROJECT SEARCH

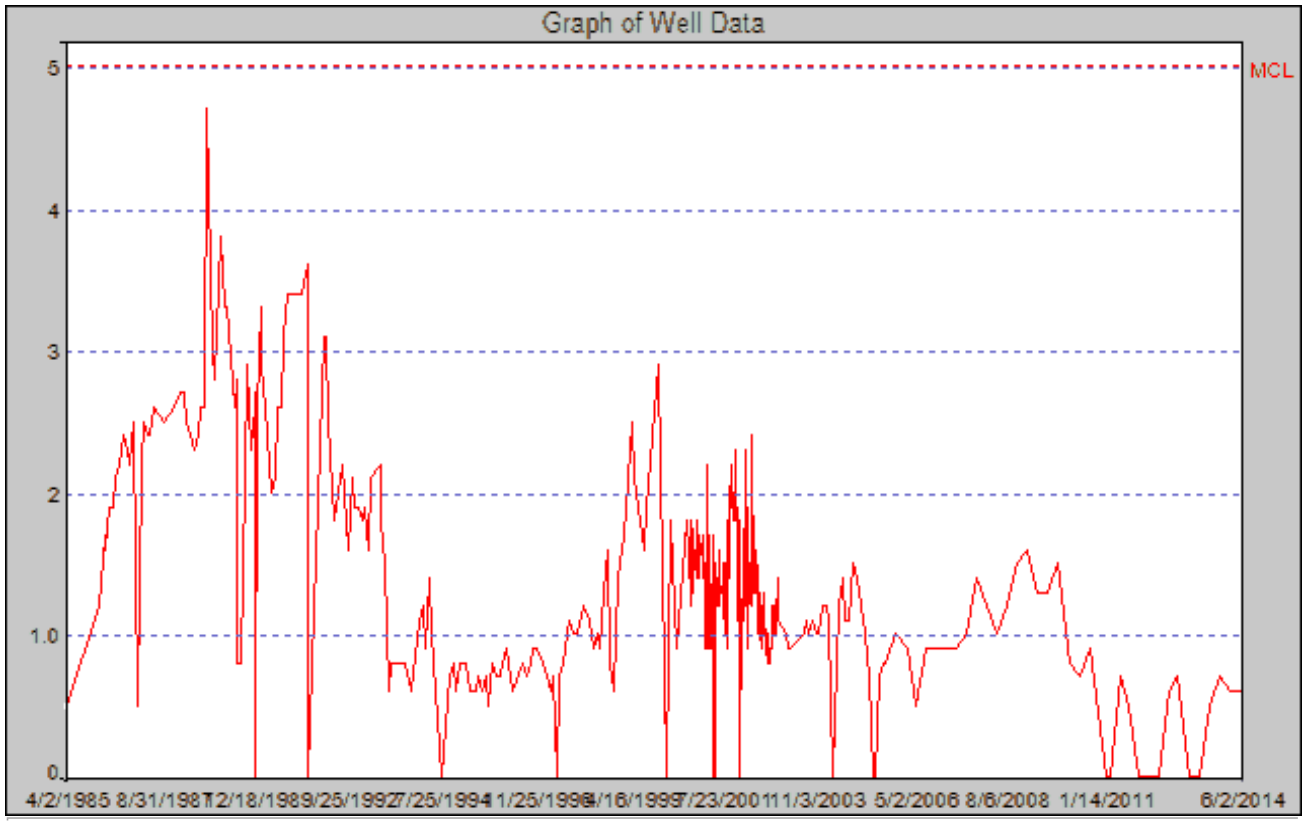
Reference:
CDPH, 2014b

Well Data Graph

CITY OF FULLERTON (FULLERTON)
KIMBERLY 02
303 W. Commonwealth
FULLERTON , CA 92832832

State Well #: 3010010-007
Well Source: Groundwater
Well Status: Active Raw

Well Details | Geographic Information | CDPH Water Quality Data | PWS Detailed Information



DATE	PARAMETER	RESULT	UNITS	MCL
6/2/2014	TETRACHLOROETHYLENE	. 0.6	UG/L	5
2/11/2014	TETRACHLOROETHYLENE	. 0.6	UG/L	5
11/7/2013	TETRACHLOROETHYLENE	0.7	UG/L	5
8/13/2013	TETRACHLOROETHYLENE	0.5	UG/L	5
5/8/2013	TETRACHLOROETHYLENE	0	UG/L	5
2/13/2013	TETRACHLOROETHYLENE	0	UG/L	5
10/29/2012	TETRACHLOROETHYLENE	0.7	UG/L	5
8/15/2012	TETRACHLOROETHYLENE	0.6	UG/L	5
5/16/2012	TETRACHLOROETHYLENE	0	UG/L	5
2/21/2012	TETRACHLOROETHYLENE	0	UG/L	5
11/7/2011	TETRACHLOROETHYLENE	0	UG/L	5
8/1/2011	TETRACHLOROETHYLENE	0.5	UG/L	5
5/19/2011	TETRACHLOROETHYLENE	0.7	UG/L	5
3/1/2011	TETRACHLOROETHYLENE	0	UG/L	5
1/14/2011	TETRACHLOROETHYLENE	0	UG/L	5
8/25/2010	TETRACHLOROETHYLENE	0.9	UG/L	5
6/1/2010	TETRACHLOROETHYLENE	0.7	UG/L	5
3/1/2010	TETRACHLOROETHYLENE	0.8	UG/L	5
11/3/2009	TETRACHLOROETHYLENE	1.5	UG/L	5
8/5/2009	TETRACHLOROETHYLENE	1.3	UG/L	5
5/5/2009	TETRACHLOROETHYLENE	1.3	UG/L	5
2/4/2009	TETRACHLOROETHYLENE	1.6	UG/L	5
11/4/2008	TETRACHLOROETHYLENE	1.5	UG/L	5
8/6/2008	TETRACHLOROETHYLENE	1.2	UG/L	5
5/5/2008	TETRACHLOROETHYLENE	1	UG/L	5
2/5/2008	TETRACHLOROETHYLENE	1.2	UG/L	5
11/6/2007	TETRACHLOROETHYLENE	1.4	UG/L	5
8/1/2007	TETRACHLOROETHYLENE	1	UG/L	5
5/8/2007	TETRACHLOROETHYLENE	0.9	UG/L	5
2/14/2007	TETRACHLOROETHYLENE	0.9	UG/L	5
11/6/2006	TETRACHLOROETHYLENE	0.9	UG/L	5
8/3/2006	TETRACHLOROETHYLENE	0.9	UG/L	5
5/2/2006	TETRACHLOROETHYLENE	0.5	UG/L	5

2/6/2006	TETRACHLOROETHYLENE	0.9	UG/L	5
11/2/2005	TETRACHLOROETHYLENE	1	UG/L	5
8/1/2005	TETRACHLOROETHYLENE	0.8	UG/L	5
7/5/2005	TETRACHLOROETHYLENE	0.8	UG/L	5
6/6/2005	TETRACHLOROETHYLENE	0.7	UG/L	5
5/2/2005	TETRACHLOROETHYLENE	0	UG/L	5
4/4/2005	TETRACHLOROETHYLENE	0	UG/L	5
3/7/2005	TETRACHLOROETHYLENE	0.7	UG/L	5
2/1/2005	TETRACHLOROETHYLENE	1	UG/L	5
11/8/2004	TETRACHLOROETHYLENE	1.4	UG/L	5
10/4/2004	TETRACHLOROETHYLENE	1.5	UG/L	5
9/7/2004	TETRACHLOROETHYLENE	1.1	UG/L	5
8/2/2004	TETRACHLOROETHYLENE	1.1	UG/L	5
7/6/2004	TETRACHLOROETHYLENE	1.4	UG/L	5
6/1/2004	TETRACHLOROETHYLENE	1.2	UG/L	5
5/3/2004	TETRACHLOROETHYLENE	0.8	UG/L	5
4/5/2004	TETRACHLOROETHYLENE	0	UG/L	5
3/1/2004	TETRACHLOROETHYLENE	1.1	UG/L	5
2/3/2004	TETRACHLOROETHYLENE	1.2	UG/L	5
1/5/2004	TETRACHLOROETHYLENE	1.2	UG/L	5
12/1/2003	TETRACHLOROETHYLENE	1	UG/L	5
11/3/2003	TETRACHLOROETHYLENE	1	UG/L	5
10/6/2003	TETRACHLOROETHYLENE	1.1	UG/L	5
9/2/2003	TETRACHLOROETHYLENE	1	UG/L	5
8/4/2003	TETRACHLOROETHYLENE	1.1	UG/L	5
7/24/2003	TETRACHLOROETHYLENE	1	UG/L	5
3/24/2003	TETRACHLOROETHYLENE	0.9	UG/L	5
3/3/2003	TETRACHLOROETHYLENE	0.9	UG/L	5
2/18/2003	TETRACHLOROETHYLENE	0.9	UG/L	5
2/10/2003	TETRACHLOROETHYLENE	1	UG/L	5
2/3/2003	TETRACHLOROETHYLENE	1	UG/L	5
11/25/2002	TETRACHLOROETHYLENE	1.1	UG/L	5
11/18/2002	TETRACHLOROETHYLENE	1.4	UG/L	5
11/12/2002	TETRACHLOROETHYLENE	1.1	UG/L	5
11/4/2002	TETRACHLOROETHYLENE	1	UG/L	5
10/28/2002	TETRACHLOROETHYLENE	1	UG/L	5
10/21/2002	TETRACHLOROETHYLENE	1.1	UG/L	5
10/14/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
10/7/2002	TETRACHLOROETHYLENE	1	UG/L	5
9/30/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
9/23/2002	TETRACHLOROETHYLENE	0.9	UG/L	5
9/16/2002	TETRACHLOROETHYLENE	0.9	UG/L	5
9/9/2002	TETRACHLOROETHYLENE	0.8	UG/L	5
9/3/2002	TETRACHLOROETHYLENE	0.8	UG/L	5
8/26/2002	TETRACHLOROETHYLENE	1	UG/L	5
8/19/2002	TETRACHLOROETHYLENE	0.8	UG/L	5
8/12/2002	TETRACHLOROETHYLENE	0.9	UG/L	5
7/29/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
7/22/2002	TETRACHLOROETHYLENE	1	UG/L	5
7/15/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
7/10/2002	TETRACHLOROETHYLENE	1	UG/L	5
7/8/2002	TETRACHLOROETHYLENE	1.1	UG/L	5
7/1/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
6/24/2002	TETRACHLOROETHYLENE	0.9	UG/L	5
6/17/2002	TETRACHLOROETHYLENE	1	UG/L	5
6/10/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
6/3/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
5/28/2002	TETRACHLOROETHYLENE	1	UG/L	5
5/20/2002	TETRACHLOROETHYLENE	1.4	UG/L	5
5/14/2002	TETRACHLOROETHYLENE	1.6	UG/L	5
5/6/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
4/29/2002	TETRACHLOROETHYLENE	1.5	UG/L	5
4/22/2002	TETRACHLOROETHYLENE	1.6	UG/L	5
4/15/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
4/8/2002	TETRACHLOROETHYLENE	2.4	UG/L	5
4/1/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
3/25/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
3/18/2002	TETRACHLOROETHYLENE	1.5	UG/L	5
3/11/2002	TETRACHLOROETHYLENE	1.5	UG/L	5
3/4/2002	TETRACHLOROETHYLENE	0.9	UG/L	5
2/25/2002	TETRACHLOROETHYLENE	1.8	UG/L	5
2/19/2002	TETRACHLOROETHYLENE	1.7	UG/L	5
2/11/2002	TETRACHLOROETHYLENE	2.1	UG/L	5
2/6/2002	TETRACHLOROETHYLENE	1.8	UG/L	5
2/4/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
1/28/2002	TETRACHLOROETHYLENE	2.3	UG/L	5
1/21/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
1/14/2002	TETRACHLOROETHYLENE	1.1	UG/L	5
1/11/2002	TETRACHLOROETHYLENE	1.3	UG/L	5
1/7/2002	TETRACHLOROETHYLENE	1.2	UG/L	5
12/17/2001	TETRACHLOROETHYLENE	0	UG/L	5
12/10/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
12/3/2001	TETRACHLOROETHYLENE	1.8	UG/L	5

11/26/2001	TETRACHLOROETHYLENE	1.1	UG/L	5
11/19/2001	TETRACHLOROETHYLENE	1.9	UG/L	5
11/13/2001	TETRACHLOROETHYLENE	1.8	UG/L	5
11/5/2001	TETRACHLOROETHYLENE	2.3	UG/L	5
10/29/2001	TETRACHLOROETHYLENE	1.8	UG/L	5
10/24/2001	TETRACHLOROETHYLENE	1.8	UG/L	5
10/22/2001	TETRACHLOROETHYLENE	2	UG/L	5
10/15/2001	TETRACHLOROETHYLENE	1.8	UG/L	5
10/8/2001	TETRACHLOROETHYLENE	2.2	UG/L	5
10/1/2001	TETRACHLOROETHYLENE	1.9	UG/L	5
9/24/2001	TETRACHLOROETHYLENE	2.1	UG/L	5
9/17/2001	TETRACHLOROETHYLENE	2	UG/L	5
9/10/2001	TETRACHLOROETHYLENE	1.4	UG/L	5
9/4/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
8/27/2001	TETRACHLOROETHYLENE	1.8	UG/L	5
8/20/2001	TETRACHLOROETHYLENE	0.9	UG/L	5
8/13/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
7/30/2001	TETRACHLOROETHYLENE	1	UG/L	5
7/23/2001	TETRACHLOROETHYLENE	1.2	UG/L	5
7/19/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
7/16/2001	TETRACHLOROETHYLENE	1.2	UG/L	5
7/9/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
7/2/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
6/25/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
6/18/2001	TETRACHLOROETHYLENE	1.4	UG/L	5
6/11/2001	TETRACHLOROETHYLENE	1.2	UG/L	5
6/4/2001	TETRACHLOROETHYLENE	1.6	UG/L	5
5/21/2001	TETRACHLOROETHYLENE	1.2	UG/L	5
5/14/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
5/7/2001	TETRACHLOROETHYLENE	0	UG/L	5
4/30/2001	TETRACHLOROETHYLENE	0	UG/L	5
4/26/2001	TETRACHLOROETHYLENE	0	UG/L	5
4/23/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
4/16/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
4/9/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
4/2/2001	TETRACHLOROETHYLENE	1.2	UG/L	5
3/26/2001	TETRACHLOROETHYLENE	0.9	UG/L	5
3/19/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
3/12/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
3/5/2001	TETRACHLOROETHYLENE	0.9	UG/L	5
2/26/2001	TETRACHLOROETHYLENE	2.2	UG/L	5
2/20/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
2/14/2001	TETRACHLOROETHYLENE	1	UG/L	5
2/14/2001	TETRACHLOROETHYLENE	0.9	UG/L	5
2/12/2001	TETRACHLOROETHYLENE	1	UG/L	5
2/5/2001	TETRACHLOROETHYLENE	0.9	UG/L	5
1/31/2001	TETRACHLOROETHYLENE	1.5	UG/L	5
1/29/2001	TETRACHLOROETHYLENE	1.3	UG/L	5
1/22/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
1/15/2001	TETRACHLOROETHYLENE	1.4	UG/L	5
1/8/2001	TETRACHLOROETHYLENE	1.7	UG/L	5
12/18/2000	TETRACHLOROETHYLENE	1.5	UG/L	5
12/11/2000	TETRACHLOROETHYLENE	1.7	UG/L	5
12/4/2000	TETRACHLOROETHYLENE	1.4	UG/L	5
11/20/2000	TETRACHLOROETHYLENE	1.8	UG/L	5
11/13/2000	TETRACHLOROETHYLENE	1.4	UG/L	5
11/6/2000	TETRACHLOROETHYLENE	1.5	UG/L	5
10/30/2000	TETRACHLOROETHYLENE	1.6	UG/L	5
10/16/2000	TETRACHLOROETHYLENE	1.3	UG/L	5
10/9/2000	TETRACHLOROETHYLENE	1.7	UG/L	5
10/2/2000	TETRACHLOROETHYLENE	1.8	UG/L	5
9/25/2000	TETRACHLOROETHYLENE	1.2	UG/L	5
9/11/2000	TETRACHLOROETHYLENE	1.6	UG/L	5
9/5/2000	TETRACHLOROETHYLENE	1.6	UG/L	5
8/30/2000	TETRACHLOROETHYLENE	1.8	UG/L	5
5/23/2000	TETRACHLOROETHYLENE	0.9	UG/L	5
3/27/2000	TETRACHLOROETHYLENE	1.8	UG/L	5
2/23/2000	TETRACHLOROETHYLENE	0	UG/L	5
12/7/1999	TETRACHLOROETHYLENE	2.9	UG/L	5
8/24/1999	TETRACHLOROETHYLENE	1.9	UG/L	5
7/26/1999	TETRACHLOROETHYLENE	1.6	UG/L	5
4/26/1999	TETRACHLOROETHYLENE	2.1	UG/L	5
4/16/1999	TETRACHLOROETHYLENE	2.5	UG/L	5
1/25/1999	TETRACHLOROETHYLENE	1.7	UG/L	5
12/9/1998	TETRACHLOROETHYLENE	1.4	UG/L	5
10/26/1998	TETRACHLOROETHYLENE	0.6	UG/L	5
9/28/1998	TETRACHLOROETHYLENE	0.8	UG/L	5
8/31/1998	TETRACHLOROETHYLENE	1.6	UG/L	5
7/27/1998	TETRACHLOROETHYLENE	1.3	UG/L	5
6/29/1998	TETRACHLOROETHYLENE	0.9	UG/L	5
5/28/1998	TETRACHLOROETHYLENE	1	UG/L	5
4/27/1998	TETRACHLOROETHYLENE	0.9	UG/L	5
3/30/1998	TETRACHLOROETHYLENE	1.1	UG/L	5

1/26/1998	TETRACHLOROETHYLENE	1.2	UG/L	5
11/25/1997	TETRACHLOROETHYLENE	1	UG/L	5
10/27/1997	TETRACHLOROETHYLENE	1	UG/L	5
9/29/1997	TETRACHLOROETHYLENE	1.1	UG/L	5
8/25/1997	TETRACHLOROETHYLENE	1	UG/L	5
7/28/1997	TETRACHLOROETHYLENE	0.8	UG/L	5
6/30/1997	TETRACHLOROETHYLENE	0.7	UG/L	5
5/27/1997	TETRACHLOROETHYLENE	0	UG/L	5
4/28/1997	TETRACHLOROETHYLENE	0.7	UG/L	5
3/31/1997	TETRACHLOROETHYLENE	0.6	UG/L	5
2/24/1997	TETRACHLOROETHYLENE	0.7	UG/L	5
1/27/1997	TETRACHLOROETHYLENE	0.8	UG/L	5
11/25/1996	TETRACHLOROETHYLENE	0.9	UG/L	5
10/28/1996	TETRACHLOROETHYLENE	0.9	UG/L	5
9/30/1996	TETRACHLOROETHYLENE	0.8	UG/L	5
8/26/1996	TETRACHLOROETHYLENE	0.7	UG/L	5
7/29/1996	TETRACHLOROETHYLENE	0.8	UG/L	5
4/24/1996	TETRACHLOROETHYLENE	0.6	UG/L	5
3/25/1996	TETRACHLOROETHYLENE	0.8	UG/L	5
2/27/1996	TETRACHLOROETHYLENE	0.9	UG/L	5
1/29/1996	TETRACHLOROETHYLENE	0.8	UG/L	5
1/2/1996	TETRACHLOROETHYLENE	0.7	UG/L	5
11/27/1995	TETRACHLOROETHYLENE	0.7	UG/L	5
10/30/1995	TETRACHLOROETHYLENE	0.8	UG/L	5
9/25/1995	TETRACHLOROETHYLENE	0.5	UG/L	5
8/28/1995	TETRACHLOROETHYLENE	0.7	UG/L	5
7/31/1995	TETRACHLOROETHYLENE	0.6	UG/L	5
6/26/1995	TETRACHLOROETHYLENE	0.7	UG/L	5
5/30/1995	TETRACHLOROETHYLENE	0.6	UG/L	5
3/27/1995	TETRACHLOROETHYLENE	0.6	UG/L	5
2/28/1995	TETRACHLOROETHYLENE	0.8	UG/L	5
1/11/1995	TETRACHLOROETHYLENE	0.8	UG/L	5
11/28/1994	TETRACHLOROETHYLENE	0.6	UG/L	5
10/31/1994	TETRACHLOROETHYLENE	0.8	UG/L	5
9/26/1994	TETRACHLOROETHYLENE	0.7	UG/L	5
7/25/1994	TETRACHLOROETHYLENE	0	UG/L	5
4/26/1994	TETRACHLOROETHYLENE	1	UG/L	5
3/28/1994	TETRACHLOROETHYLENE	1.4	UG/L	5
2/28/1994	TETRACHLOROETHYLENE	0.9	UG/L	5
1/31/1994	TETRACHLOROETHYLENE	1.2	UG/L	5
12/29/1993	TETRACHLOROETHYLENE	1.1	UG/L	5
10/25/1993	TETRACHLOROETHYLENE	0.6	UG/L	5
8/30/1993	TETRACHLOROETHYLENE	0.8	UG/L	5
4/26/1993	TETRACHLOROETHYLENE	0.8	UG/L	5
3/29/1993	TETRACHLOROETHYLENE	0.6	UG/L	5
2/22/1993	TETRACHLOROETHYLENE	1.5	UG/L	5
1/25/1993	TETRACHLOROETHYLENE	1.8	UG/L	5
1/21/1993	TETRACHLOROETHYLENE	2.2	UG/L	5
10/26/1992	TETRACHLOROETHYLENE	2.1	UG/L	5
9/28/1992	TETRACHLOROETHYLENE	1.6	UG/L	5
8/31/1992	TETRACHLOROETHYLENE	1.9	UG/L	5
7/27/1992	TETRACHLOROETHYLENE	1.8	UG/L	5
6/29/1992	TETRACHLOROETHYLENE	1.9	UG/L	5
5/26/1992	TETRACHLOROETHYLENE	1.9	UG/L	5
4/28/1992	TETRACHLOROETHYLENE	2.1	UG/L	5
3/30/1992	TETRACHLOROETHYLENE	1.6	UG/L	5
3/25/1992	TETRACHLOROETHYLENE	1.6	UG/L	5
1/27/1992	TETRACHLOROETHYLENE	2.2	UG/L	5
11/25/1991	TETRACHLOROETHYLENE	1.8	UG/L	5
9/30/1991	TETRACHLOROETHYLENE	2.5	UG/L	5
9/4/1991	TETRACHLOROETHYLENE	3.1	UG/L	5
8/26/1991	TETRACHLOROETHYLENE	3.1	UG/L	5
4/4/1991	TETRACHLOROETHYLENE	0	UG/L	5
4/1/1991	TETRACHLOROETHYLENE	3.6	UG/L	5
1/28/1991	TETRACHLOROETHYLENE	3.4	UG/L	5
9/24/1990	TETRACHLOROETHYLENE	3.4	UG/L	5
8/27/1990	TETRACHLOROETHYLENE	3.1	UG/L	5
7/30/1990	TETRACHLOROETHYLENE	2.6	UG/L	5
6/25/1990	TETRACHLOROETHYLENE	2.6	UG/L	5
5/29/1990	TETRACHLOROETHYLENE	2.1	UG/L	5
4/30/1990	TETRACHLOROETHYLENE	2	UG/L	5
2/26/1990	TETRACHLOROETHYLENE	2.6	UG/L	5
2/5/1990	TETRACHLOROETHYLENE	2.9	UG/L	5
1/30/1990	TETRACHLOROETHYLENE	3.3	UG/L	5
12/18/1989	TETRACHLOROETHYLENE	2.6	UG/L	5
12/4/1989	TETRACHLOROETHYLENE	0	UG/L	5
12/1/1989	TETRACHLOROETHYLENE	2.7	UG/L	5
11/27/1989	TETRACHLOROETHYLENE	2.6	UG/L	5
10/30/1989	TETRACHLOROETHYLENE	2.3	UG/L	5
9/25/1989	TETRACHLOROETHYLENE	2.9	UG/L	5
8/28/1989	TETRACHLOROETHYLENE	2.1	UG/L	5
7/31/1989	TETRACHLOROETHYLENE	0.8	UG/L	5
6/26/1989	TETRACHLOROETHYLENE	0.8	UG/L	5

6/21/1989	TETRACHLOROETHYLENE	2.8	UG/L	5
5/30/1989	TETRACHLOROETHYLENE	2.6	UG/L	5
3/28/1989	TETRACHLOROETHYLENE	3.3	UG/L	5
2/28/1989	TETRACHLOROETHYLENE	3.3	UG/L	5
1/30/1989	TETRACHLOROETHYLENE	3.8	UG/L	5
11/28/1988	TETRACHLOROETHYLENE	2.8	UG/L	5
11/9/1988	TETRACHLOROETHYLENE	3	UG/L	5
9/26/1988	TETRACHLOROETHYLENE	4.7	UG/L	5
8/29/1988	TETRACHLOROETHYLENE	2.6	UG/L	5
7/25/1988	TETRACHLOROETHYLENE	2.6	UG/L	5
7/5/1988	TETRACHLOROETHYLENE	2.4	UG/L	5
5/31/1988	TETRACHLOROETHYLENE	2.3	UG/L	5
4/25/1988	TETRACHLOROETHYLENE	2.4	UG/L	5
3/28/1988	TETRACHLOROETHYLENE	2.5	UG/L	5
2/29/1988	TETRACHLOROETHYLENE	2.7	UG/L	5
2/23/1988	TETRACHLOROETHYLENE	2.7	UG/L	5
1/25/1988	TETRACHLOROETHYLENE	2.7	UG/L	5
11/30/1987	TETRACHLOROETHYLENE	2.6	UG/L	5
8/31/1987	TETRACHLOROETHYLENE	2.5	UG/L	5
5/26/1987	TETRACHLOROETHYLENE	2.6	UG/L	5
4/27/1987	TETRACHLOROETHYLENE	2.4	UG/L	5
3/30/1987	TETRACHLOROETHYLENE	2.4	UG/L	5
2/23/1987	TETRACHLOROETHYLENE	2.5	UG/L	5
2/2/1987	TETRACHLOROETHYLENE	2.2	UG/L	5
12/29/1986	TETRACHLOROETHYLENE	< 0.5	UG/L	5
11/24/1986	TETRACHLOROETHYLENE	2.5	UG/L	5
10/27/1986	TETRACHLOROETHYLENE	2.2	UG/L	5
9/29/1986	TETRACHLOROETHYLENE	2.3	UG/L	5
8/25/1986	TETRACHLOROETHYLENE	2.4	UG/L	5
7/28/1986	TETRACHLOROETHYLENE	2.2	UG/L	5
6/25/1986	TETRACHLOROETHYLENE	2.1	UG/L	5
5/28/1986	TETRACHLOROETHYLENE	1.9	UG/L	5
4/30/1986	TETRACHLOROETHYLENE	1.9	UG/L	5
3/19/1986	TETRACHLOROETHYLENE	1.6	UG/L	5
3/12/1986	TETRACHLOROETHYLENE	1.7	UG/L	5
1/20/1986	TETRACHLOROETHYLENE	1.2	UG/L	5
4/2/1985	TETRACHLOROETHYLENE	< 0.5	UG/L	5

FROM DATE: **TO DATE:** **GRAPH SIZE** **NORMALIZED**

Medium

Redraw

ENVIROSTOR HOME | PROJECT SEARCH

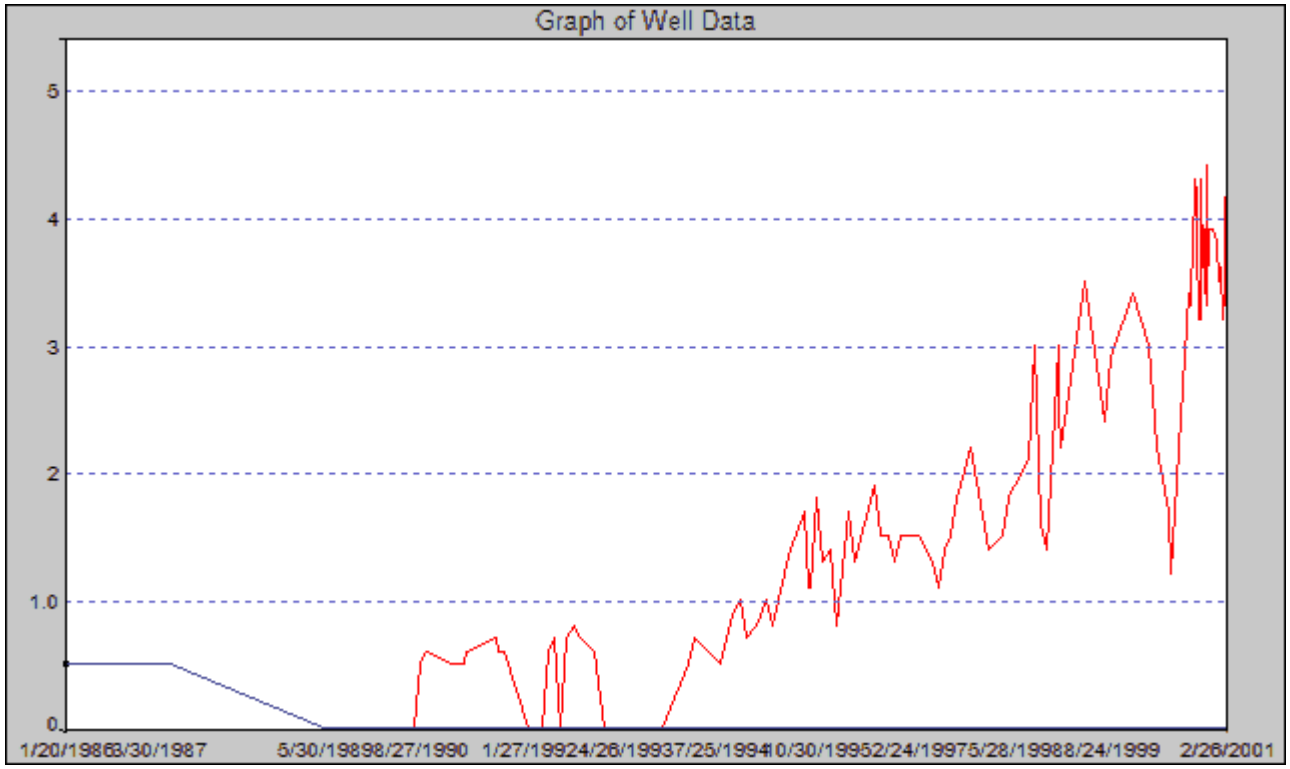
Reference:
CDPH, 2016a

Well Report

CITY OF FULLERTON (FULLERTON)
KIMBERLY 01 - ABANDONED
303 W. Commonwealth
FULLERTON , CA 92832832
(Show This Well on Map)

State Well #: 3010010-006
Well Source: Groundwater
Well Status: Inactive Raw

Detailed Well Information | DPH Water Quality Data



Chemical	Color	Visible?
TETRACHLOROETHYLENE	Red	Visible?: ☑
TRICHLOROETHYLENE	Blue	Visible?: ☑

FROM DATE: TO DATE: GRAPH SIZE: Small NORMALIZED: ☐ Redraw

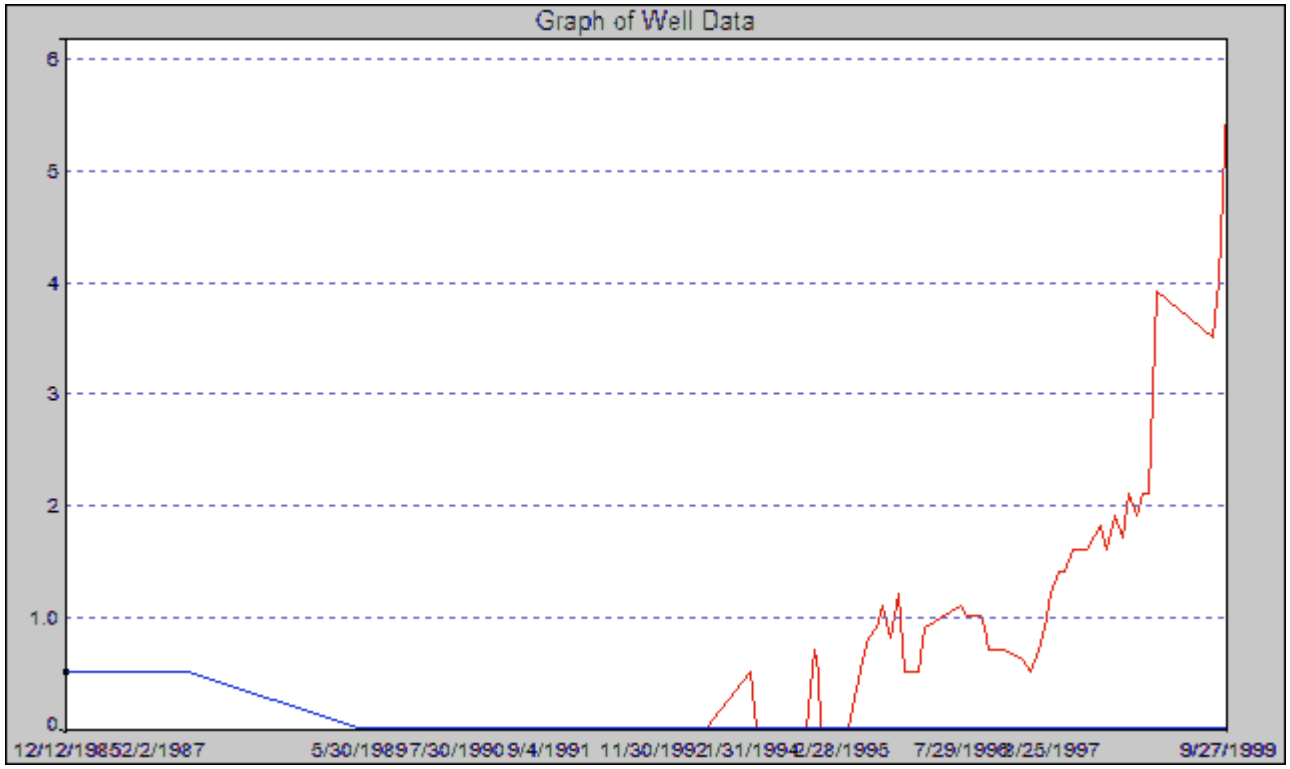
Reference:
CDPH, 2016b

Well Report

CITY OF FULLERTON (FULLERTON)
FIRE STATION WELL 13 - ABANDONED
303 W. Commonwealth
FULLERTON , CA 92832832
(Show This Well on Map)

State Well #: 3010010-005
Well Source: Groundwater
Well Status: Inactive Raw

Detailed Well Information | DPH Water Quality Data



Chemical	Color	Visible?
TETRACHLOROETHYLENE	Red	Visible?: ☑
TRICHLOROETHYLENE	Blue	Visible?: ☑

FROM DATE: **TO DATE:** **GRAPH SIZE** Small **NORMALIZED** ☐ Redraw

Reference:
COWD, 2014

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

このレポートには、飲料水に関する重要な情報が含まれています。 は、変換、またはそれを理解している人と話すことになっている。

이 보고서는 식수에 대한 중요한 정보가 포함되어 있습니다. 그것은 번역, 또는 알고 있는 사람들과 이야기하고 있다.

Ang ulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa iyong mga inuming tubig. Isalin ang mga ito, o makipag-usap sa isang tao na nauunawaan ito.

这个报告包含关于您的饮用水的重要信息。翻译它或者与了解它的人讲话。

Báo cáo này có chứa thông tin quan trọng về nước uống của bạn. Dịch nó, hoặc nói chuyện với một ai đó hiểu nó.

NEED TO CONTACT US?

BY MAIL: City of Orange Water Division
P.O. Box 449, Orange, California 92866

BY PHONE:
Water Quality (714) 288-2475
Chris Costlow, *Sr. Water Quality Inspector*
Jason Athas, *Water Quality Inspector*
Water Engineering (714) 288-2475
24 Hour Emergency (714) 538-1961
Water Billing (714) 744-2233

WEBSITE: www.cityoforange.org/ccr

City of Orange Water Division
189 South Water Street
Orange, California 92866

CONSUMER CONFIDENCE REPORT

Based on 2014 Averages

Serving the City of Orange for Over 100 Years

City of Orange
Water Division

Class 1 Water Utility

CITY OF ORANGE WATER DIVISION CONSUMER CONFIDENCE REPORT – 2014

Since 1990, the City of Orange has provided its water customers an annual water quality report. The federal government has adopted guidelines for water agencies to follow when communicating water quality information to consumers. The State of California tailored these guidelines and the former water quality report is now called the Consumer Confidence Report. The new format is intended to provide customers a summary of the water quality data, key definitions, and other related information.

This report summarizes the quality of the water provided in 2014. It includes details about water sources, what the water contains, and how it compares to standards set by the State of California. Orange vigilantly monitors and safeguards its water supplies. We are pleased to report that your tap water met all Federal and State drinking water health standards. For more information about your water, call (714) 288-2475 and ask for Chris Costlow or Jason Athas.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Orange's water comes from two sources. The primary source is groundwater drawn from 15 municipal wells drilled about 1000 feet into the Santa Ana River Aquifer. Well water goes directly into the distribution system, is disinfected with chlorine and meets all state regulations. The second source is water imported by the Metropolitan Water District, from the Colorado River and from northern California (San Francisco-San Joaquin Bay Delta). Metropolitan water is filtered and disinfected with chloramines.

The Orange City Council meets on the second Tuesday of each month at 6:00pm in the City Hall Council Chambers, 300 East Chapman Avenue. The community is welcome to participate in these meetings.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It also can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before it is treated include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses.
- Radioactive contaminants, which are naturally occurring.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the California Department of Public Health prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Department's Food and Drug Branch regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

WATER QUALITY DATA

The table below lists all the drinking water contaminants detected by the City of Orange during the 2014 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2014. The State requires the City of Orange to monitor for certain contaminants less than once per year because the concentrations of these contaminants is not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Terms and abbreviations used below:

- **Primary Drinking Water Standard or PDWS:** MCLs and MRLDs for contaminants that effect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **NA:** not applicable
- **ND:** not detected
- **NS:** no standard
- **NTU:** Nephelometric Turbidity Units
- **ppm:** parts per million
- **ppb:** parts per billion
- **pCi/l:** picocuries per liter (a measure of radiation)
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

PRIMARY DRINKING WATER STANDARDS

(Mandatory Health Related Standards Established by the State of California, Department of Health Services)

Contaminant	Unit Measurement	MCL	PHG (MCLG)	Range	Average	Date Sampled	Typical Source of Contaminant
Microbiological Contaminants							
Total Coliform Bacteria	MCL 5.0% of monthly samples are positive		(0)	ND	ND	Weekly	Naturally present in the environment
Turbidity: Import	NTU	0.5 TT	NA	ND	ND	Daily	Soil runoff

Turbidity is a measure of the cloudiness of the water. Turbidity is a good indicator of the effectiveness of the filtration process.

Radioactive Contaminants							
Gross Alpha Activity	pCi/l	15	0	ND-10.80	4.75	2014	Erosion of natural deposits
Uranium	pCi/l	20	0.43	0.88-8.74	3.99	2014	Erosion of natural deposits
Gross Beta Activity	pCi/l	50	0	ND-5	3.2	2014	Erosion of natural deposits
Inorganic Contaminants							
Arsenic	ppb	10	0.004	ND-5.7	0.9	2014	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride	ppm	2	1	0.14-0.80	0.36	2014	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (NO_3)	ppm	45	45	ND-13	9.73	2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite	ppm	1	1	ND	ND	2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate (N)+ Nitrite	ppm	10	10	ND-3.5	2.2	2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Copper	ppm	AL=1.3	0.3	0.01-0.14 no homes above AL	90% was 0.11	2012	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	AL=15	0.2	ND-4.7 no homes above AL	90% was 1.8	2012	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY DRINKING WATER STANDARDS

(Aesthetic Standards Established by the State of California, Department of Health Services)

Contaminant	Unit Measurement	MCL	PHG (MCLG)	Range	Average	Date Sampled	Typical Source of Contaminant
Color	Units	15 units	NA	<5	<5	Monthly	Naturally-occurring organic materials
Corrosivity	---	Non-corrosive	NA	Non-corrosive	Non-corrosive	2014	Natural/industrial-influenced balance of hydrogen/carbon/oxygen in the water; affected by temperature and other factors
Methyl-tert-butyl ether (MTBE)	ppb	5	NA	ND	ND	2014	Leaking underground storage tanks and pipelines
Odor-Threshold	Units	3 units	NA	1	1	Monthly	Naturally-occurring organic materials
Turbidity: Distribution System	NTU	5	NA	0.03-0.14	0.10	Monthly	Soil runoff
Turbidity: Wells	NTU	5	NA	0.04-0.29	0.08	Monthly	Soil runoff
Total Dissolved Solids (TDS)	ppm	1000	NA	332-644	519	2014	Runoff/leaching from natural deposits
Specific Conductance	micromhos	1600	NA	688-1010	849	2014	Substances that form ions when in water; seawater influence
Chloride	ppm	500	NA	37-110	82	2014	Runoff/leaching of natural deposits; seawater influence
Sulfate	ppm	500	NA	64-232	126	2014	Runoff/leaching of natural deposits; industrial wastes

Stage 2 Disinfection Byproducts Precursors, 1st, 2nd, 3rd, and 4th (8 samples / Quarter)							
Total Trihalomethanes (TTHMS)	ppb	80	NA	ND-38	23	December 2014	By-product of drinking water chlorination

Highest Local Running Annual Average 36

Haloacetic acids (HAA5)	ppb	60	NA	ND-22	10	December 2014	By-product of drinking water chlorination

Highest Local Running Annual Average 16

		MRDL	MRDLG				
Total Chlorine Residual	ppm	4.0	4.0	ND-2.6	1.0	Weekly	Drinking water disinfectant

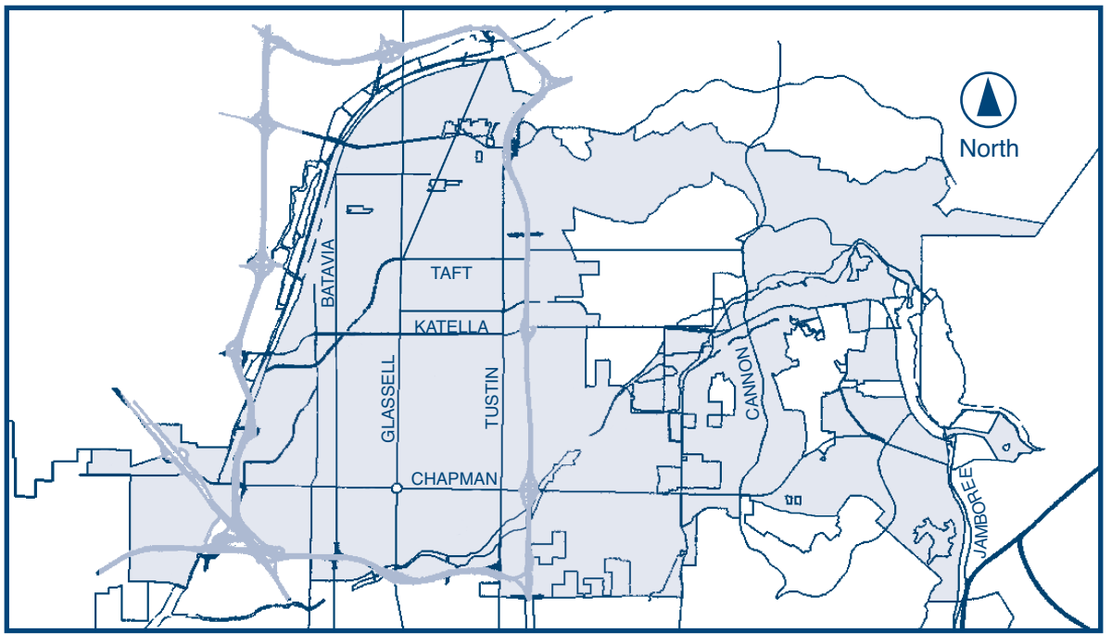
Other Parameters

Calcium	ppm	NS	NS	51-105	90	2014	Naturally-occuring dissolved mineral
Magnesium	ppm	NS	NS	9-26	19	2014	Naturally-occuring dissolved mineral
Iron	ppb	300	NS	ND-51	11	2014	Naturally-occuring; Industrial waste
pH: Wells	pH Units	NS	NS	6.5-8.1	7.6	Monthly	
pH: Distribution System	pH Units	NS	NS	6.7-8.3	7.6	Monthly	
Sodium	ppm	NS	NS	38-89	58	2014	Erosion of natural deposits
Hardness ($CaCO_3$)	Grains/Gallon	NS	NS	9-21	18	2014	Erosion of natural deposits

SOURCE WATER ASSESSMENT

City of Orange water supplies are from various sources including groundwater, purchased water from Northern California and the Colorado River, and local watersheds. An assessment of our drinking water sources was completed in February 2003. Water sources are considered most vulnerable to contamination from those activities associated with urban industrial environments such as chemical processing, petroleum pipelines and storage, gas stations and sewer collection systems. The City of Orange carefully tests all water supply sources to assure the safety and compliance with all Drinking Water Standards. A copy of the assessment summary is available at the City of Orange Water Division, located at 189 S. Water St., or you may request a summary be sent to you by contacting the City of Orange Water Division at (714) 288-2475.

City of Orange Water Division Service Area Map



Water Supply, Water Quality, and Related Topics

CUSTOMER SERVICE: We are committed to provide prompt courteous service to our customers. If you have questions about water quality, pressure or other supply issues, please call (714) 288-2475 or after regular business hours call (714) 538-1961. Questions about your bill should be directed to our utility billing office at (714) 744-2233.

ONGOING WATER QUALITY PROGRAMS AND ACTIVITIES: The City of Orange adheres to strict regulatory standards for materials used in our water system. Rigorous third party testing assures all materials are approved for use in potable water systems. We also operate our own state-certified drinking water laboratory. With testing performed in the city's lab and contracted testing with other public and private laboratories, we are able to assure that our water supply meets or exceeds all applicable drinking water standards. In addition, our staff administers a cross-connection control program to check that water service connections are protected where there is a possibility of reverse flow contaminating our water system.

DISINFECTION: Water supplies are made safe to drink in several ways. All of the city's well water sources are naturally filtered as the water percolates through the ground removing impurities. As an added protection, the city chlorinates all well water pumped into the distribution system. Other water sources require treatment at facilities designed to remove impurities and make water safe to drink. Water treatment facilities use various forms of disinfection including chlorine, chloramines and ozone. Each, or a combination of these, may be used to treat surface water purchased by the city for delivery to our customers. **All treatment methods are designed to make the water safe for humans to drink. Chloramine disinfection can be toxic to fish and other aquatic animals and is of concern for kidney dialysis patients. Water supplied with chloramines generally makes up about 25% to 35% of our total supply. Pet fish owners should take appropriate remedies when changing or adding water from the tap to fishponds or fish tanks. Dialysis patients should consult a health care professional for appropriate precautions.**

FIRE HYDRANTS: The City of Orange maintains high standards for water supplies available for fire protection and is rated a Class I Water System by the Insurance Services Office. We have over 4,500 public fire hydrants located throughout our service area. Many other hydrants are privately owned and maintained by the property owner. The city tests all public hydrants on a regular interval, usually once each year. It is very important that hydrants function properly and are accessible to firefighters when emergency supplies are needed. **If there is a hydrant in front of your home or on your property, please maintain a sufficiently clear, three-foot minimum area around the hydrant. Bushes, shrubs, trees, etc. should be trimmed to keep the hydrant visible and accessible.**

REGIONAL WATER SUPPLY SOURCES: Water supplies throughout Southern California are derived from several sources. These sources include water from Northern California via the State Water Project, the Colorado River, local groundwater basins, local water sheds, reclamation and water reuse projects, and ocean desalinization. The combination of some or all of these sources is available to the City of Orange now or in the future. Reliable water supplies are essential to our health, safety, and welfare. **No single source is sufficient to meet all of our water supply needs. The challenge is to find a cost-effective, reliable combination that will ensure adequate water supplies now and into the future. Please help recognize the value of a reliable water supply. Use what you need, but please don't waste water. For water conservation information, please call (714) 288-2475.**

Reference:
DTSC, 2015

California Site Screening

Site Name:	**Northrop Y-19**				
SEMS ID:	**CAN000900325**				
Address:	1401 East Orangethorpe Ave				
City:	**Fullerton**	***State:***	CA	***Zip:***	92831

Cooperative Agreement *Name and Number:*	PA/SI COOPERATIVE AGREEMENT CA DEPARTMENT OF TOXIC SUBSTANCES CONTROL ID #: 00T14601-1 7/1/14 TO 6/30/15
California *DTSC Liaision:*	Gimeno-O'Brien, Alice
California DTSC Project Manager:	Abbasi, Rafat
California *DTSC GSB Liaision:*	Neal, Greg
U.S. *EPA Site Assessment Manager:*	Hoang, Kim

LIST OF ACRONYMS

BGS	Below Ground Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CWS	California Water System Company
DTSC	Department of Toxic Substances Control
EHS	Kern County Environmental Health Services Department
EPA	United States Environmental Protection Agency
HRS	Hazard Ranking System
HWTS	Hazardous Waste Tracking System
MCL	Maximum Contaminant Level
mg/kg	milligrams per kilogram
NPL	National Priorities List
PA	Preliminary Assessment
PCE	Tetrachloroethylene
PCS	Pre-CERCLA Screening Assessment
RCRA	Resource Conservation and Recovery Act
RCRAInfo	Resource Conservation and Recovery Act Information
RSL	Regional Screening Level
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SEMS	Superfund Enterprise Management System
SPS	Sierra Process Systems site
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VOC	Volatile Organic Compound
µg/L	microgram per liter

California Site Screening: Northrop Y-19

PART A: Decision Documentation

1.1 Core Information

SEMS Site Name:	Northrop Y-19
SEMS EPA ID:	CAN000900325
Street Address:	1401 East Orangethorpe Ave
City:	Fullerton
County:	Orange
CADTSC Regional Office:	Cypress
Envirostor Project Code:	60002053
Envirostor Site Name:	Northrop Y-19
Envirostor ID:	60002053
Geotracker Site Name:	
Geotracker ID:	
Land Use:	Industrial
Latitude:	33.8604241
Longitude:	-117.90403839999999

Site History

Current Operations

Currently Operational:	Yes
Current Owner:	TCLW (Weil and Company)
Current Operator:	Goton Tiles
Operational Activities:	Tile installation, ceremic
Dates of Current Operations:	unknown

Historical Operations

Previous Owners:	McLachlan Investment Co
Previous Operator:	Northrop Grumman Corporation
Operational Activities:	Electronic component assembly, painting, soldering and degreasing
Dates of Previous Operations:	1982-1990

Historical Operations

Previous Owners:	Not known
Previous Operator:	Memorax Corporation
Operational Activities:	Audio tape manufacturing
Dates of Previous Operations:	1979

Historical Operations

Previous Owners:	Not known
Previous Operator:	Cook-Sander Wire/Bar Inc.
Operational Activities:	Acid vats and galvanizing
Dates of Previous Operations:	1977

California Site Screening: Northrop Y-19

Lead Agency

Current Site Lead Agency: DTSC
Current Site Lead Contact: Rafat Abbasi

USEPA

Last EPA Assessment: Year Completed: 10/01/1990

DTSC

DTSC Point of Contact: Rafat Abbasi
Last DTSC Action/Order: Year Completed: N/A
Action/Order Link:
Details:

RWQCB

RWQCB Point of Contact:
Last RWQCB Action: Year Completed:
RWQCB Action Link:
Details:

RCRA

RCRA Status:
RCRA ID:
Details:

Other

Agency: City of Fullerton, Fire Department
Investigation Type: Hazadous Chemical Disclosure Year Completed: 10/01/1990

California Site Screening: Northrop Y-19

Pathways and Contaminants

Pathway of concern: *Primary* Groundwater

Secondary Air

Most Significant Contaminant of Concern (CoC): Tetrachloroethylene

Other Contaminants: Trichloroethylene

Source of CoC information:

Hazardous Materials Used: Organic waste residue, organic liquid mixture, halogenated organic compounds, T

Hazardous Materials Manifested or disposed (per HWTS):

California Site Screening: Northrop Y-19

Project Data Package

SEMS Site Name:	**Northrop Y-19**
SEMS ID:	**CAN000900325**
City:	**Fullerton**

Data Package - Confidential

1. SPGIT Priority

a. Is the site in a SPGIT Priorty Area?	Yes
(i). If Yes, what is the site's SPGIT Quad Priority Level?	3
(ii). If Yes, what is the site's SPGIT Quad Priority Ranking?	131
b. Is the site adjacent to a SPGIT Priority Area?	Yes

E: 73

SW: 184

2. Groundwater

a. What is the prevailing groundwater flow direction?	Northwest
b. How many drinking water wells are within a 4 mile radius of the site?	54
(i). What is the distance of the nearest drinking water well (in feet)?	906
(ii). What is the direction of the nearest drinking water well?	North
c. How many contaminated drinking water wells are within a 4 miles radius?	47
(i). Of the wells within the 4 mile radius, what is the distance of the nearest contaminated well from the site (ft)?	2751
(ii). What key contaminants are in the nearest impacted drinking water well?	Tetrachloroethylene
(iii). Approximate number of people served:	137367
(iv). Site is a suspected source of groundwater contamination:	Yes
d. Is the site within a known groundwater contamination plume?	Yes
(i). What key contaminants are found in the plume?	Trichloroethylene Tetrachloroethylene 1,1 Dichloroethane 1,4 Dioxane
e. Are any groundwater contamination plumes within one mile upgradient from the site?	Yes
(i). What key contaminants are found in the upgradient plume?	Trichloroethylene Tetrachloroethylene 1,1 Dichloroethane
f. Are any groundwater contamination plumes within one mile downgradient from the site?	Yes
(i). What key contaminants are in the downgradient plume?	Trichloroethylene Tetrachloroethylene 1,1 Dichloroethane 1,4 Dioxane

3. Surface Water

a. Is the site a potential source of contamination to surface water?	No
b. Is Surface water used for drinking water within 15 miles of the site?	No
(i). Public / commercial supply	
(ii). Private supply	
(iii). Approximate number of people served by the surface water:	
(iv). Details/additional information:	
c. Health advisory for consuming fish	No
d. Is surface water within 15 miles of the site is used for recreational or commercial fishing?	Yes
e. Is Surface water within 15 miles of the site provides habitat for sensitive species?	Yes
f. Is the site is a suspected source of surface water contamination?	No
g. Details, description and references:	Pacific Ocean located 13.5 miles SW

California Site Screening: Northrop Y-19

Project Data Package

4. Soil

a. Is the site centroid within 400' of soil exposure targets (schools, daycare centers, residences, workplaces)?	Yes
b. Is the site centroid within 200' of soil exposure targets(schools, daycare centers, residences, workplaces)?	Yes
(i). What are the soil exposure targets?	Workplaces
c. Is there an adjacent soil contamination site?	Unknown
(i). What are the key contaminants found in the adjacent sites?	

5. Sensitive Environments

a. Is the site within one-mile of a downgradient surface water body?	Yes
b. Is the site within one-mile of a downgradient wetlands?	No
c. Are any sensitive species known to inhabit the site vicinity?	Yes

6. Nearby Sites

a. Are there RCRA generators with manifest data within one mile of the site that may have potential key contaminants in common with the site?	Yes
(i). What are the suspected key contaminants?	Volatile Organic Compounds (VOCs)
b. Are there DTSC cleanup sites within one mile of the site?	Yes
c. Are there active RWQCB sites within one mile of the site?	Yes
d. Are there active USEPA Non-NPL sites within one mile of the site?	Yes
e. Are there active USEPA Superfund Cleanup sites within one mile of the site?	No

7. Analysis

The site lies within SPGIT area 131. Additionally, areas 73 and 184 are located adjacent to the east and southwest respectively. Reported site related constituents of concern include VOCs (PCE, TCE and 1,1-DCE) and 1,4 dioxane. Available information indicates groundwater flow direction in the vicinity is generally northwesterly with local variation. Chemical data compiled by the OCWD indicate that immediately downgradient of the Northrop facility groundwater concentrations of PCE, TCE, 1,1-DCE and 1,4 dioxane are significantly elevated compared to upgradient concentrations. Approximately 54 existing drinking water wells are located within 4 miles of the site with a mix of active raw, treated and standby designations. An additional 47 wells have been destroyed for unknown reasons. The DPH well histograms are provided a nearby operating impacted drinking water well (Kimberly 02), located 3,842 feet east and impacted by PCE and TCE as well as an abandoned (but not destroyed) well (Fire Station Well 13 – Abandoned) located 2751 feet northeast and impacted by PCE. Sensitive species located in the vicinity of the site include the Davidson bushmallow, coastal California gnatcatcher and white rabbit - tobacco. The subject site does not appear on the HWTS database by name, however, the site address is included under the name Lap Co Inc and records of waste generation are included. The site is currently developed as the Goton Tiles Inc facility.

California Site Screening: Northrop Y-19

References

Last Site Assessment Document Date and 9100-3 Decision Document

Last EPA Assessment Type:

Year Completed: 10/01/1990

Relevant Well(s) Histogram

Histogram Link:

Envirostor Site Summary

Envirostor Summary Link:

Last DTSC Action/Order:

Year Completed: N/A

Action/Order Link: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60002053

Geotracker Site Documents

Geotracker Link:

Last RWQCB Action:

Year Completed:

Correspondence and contact reports pertaining to decision

Correspondence Documents:

California Site Screening: Northrop Y-19

Site Reconnaissance

Method of Site Reconnaissance:	Records Review
Adjacent Properties:	
North:	Warehouse
East:	Office space/warehouse
South:	Orangethorpe Avenue
West:	office space/shops
Structures Onsite (e.g. office building, paint booth, repair shop, etc.):	Office Building/Warehouse
Site Surface Description (e.g., visual staining, cracked pavement, etc.):	See photos. Since access to the site was not possible, information associated the surface is not obtained. Based on the review of the photo, the property is paved with concrete.
Materials Stored:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Materials in Use:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Waste Storage and Potential Hazardous Materials (Specify numbers, volume, and content):	Site visit was not performed since owner did not respond to DTSC calls/requests.
Drums:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Aboveground Storage Tanks:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Underground Storage Tanks:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Clarifiers:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Transformers Potentially Containing PCBs:	Site visit was not performed since owner did not respond to DTSC calls/requests.
Other:	Not available
Site Reconnaissance Report Attachments:	Northrop_Site Photos (3).pdf
Site Screening Contact Report Attachments:	Contact_Log_Northrpo_Y19.pdf

California Site Screening: Northrop Y-19
Project Triage Recommendations and EPA Decision

SEMS Site Name: **Northrop Y-19**

CERCLIS ID: **CAN000900325**

City: **Fullerton**

2.0 Part B: Triage Recommendation - Staff

Initial Triage Recommendation (DTSC):

The former Northrop Y-19 site ("the Site") occupies approximately 5.38 acres and is located in an industrial/commercial area at 1401 East Orangethorpe Avenue, Fullerton, California. Northrop Corporation (predecessor of Northrop Grumman) leased the Site in 1982, and business operations took place from 1984 to 1990. The operations at the Site included electronic component assembly, painting, soldering, degreasing operations, and storage. The Site was considered a satellite facility for another Northrop facility located at 500 East Orangethorpe Avenue. The owner who leased the Site was McLachlan Investment Co. Currently, TCLW/Weil and Company owns the Site and Goton Tiles/Lapco currently occupies the Site. The company is a tile and flooring business that has operated since approximately 2008. Previous operators include Memorex Corporation (1979, audio tape manufacturer), and Cook-Sanders Wire/Bar (1977-operations utilized acid vats and galvanizing).

The United States Environmental Protection Agency (EPA) conducted a Resource Conservation and Recovery Act (RCRA) Compliance Evaluation in 1990. The EPA noted several violations including storage of hazardous waste for 371 days, failure to keep copies of manifests, biennial reports, hazardous waste personnel training program, and Contingency Plan on-site. EPA reported that the Site generated small amounts (less than 1 gallon per day) of 1,1,1-trichloroethane (1,1,1-TCA) from printed circuit board production.

In 1990, the Site conducted an environmental assessment. The environmental assessment reported that the Orange County Health Care Agency (OCHCA) conducted inspections infrequently and identified waste streams including paint wastes, paint filters, and 1,1,1-TCA. As a result of the RCRA inspection conducted in 1990, the OCHCA found that the Site did not keep copies of the manifests on-site. City of Fullerton Fire Department (FFD) records indicated the installation of 8,000 gallon underground paint storage tank on the north side of the facility building. The tank was reportedly removed in 1974. No additional information regarding soil sampling within the tank excavation was indicated. Waste streams identified by FFD included propanol, naptha, epoxy reducer (solvent), 1,1,1-TCA, and Freon TF (trichloroflouroethane). One 3,500-gallon sump was known to exist at the Site. The sump was registered with the Regional Water Quality Control Board (RWQCB). According to the records, the sump was installed before it was subleased to the Site. The historical use of the sump is also unknown. The environmental assessment also reported several violations at the Site. The violations were associated with hazardous waste chemical spills in 1985 (vapor release from one drum of solvent), 1986 (5-7 gallons of waste spilled in the storage area), and 1987 (60 gallons of opaque liquid into drainage ditch).

In 2009, the Orange County Water District (OCWD) conducted a soil gas survey along the east and northern boundary of the existing building. Fourteen samples from seven locations were collected at 10 and 20 feet below ground surface (bgs). Results indicated detection of trichloroethylene (TCE), tetrachloroethene (PCE), and 1,1,1-TCA. Maximum TCE and PCE concentrations were 17 ug/l at 20 feet bgs and 3 ug/l at 10 feet bgs, respectively. 1,1,1-TCA was detected in only one sample at 1 ug/l at 20 feet bgs. The industrial screening values for TCE and PCE in soil gas are 0.48 ug/l and 2.08 ug/l, respectively.

Review of the Hazardous Waste Tracking System information indicates that the current operator generates hazardous waste including unspecified liquid mixture, liquid with halogenated organic compounds, TCE related waste, and non-halogenated solvent waste.

Information from adjacent property indicates groundwater flow direction in the vicinity is generally northwesterly with local variation. Approximately 54 existing drinking water wells are located within 4 miles of the site with a mix of active raw, treated and standby designations. An additional 47 wells have been destroyed for unknown reasons. The nearby impacted drinking water well located approximately 3,800 feet east is impacted by PCE and TCE. An abandoned (but not destroyed) well located approximately 2,800 feet northeast is also impacted by PCE. Chemical data compiled by the OCWD indicate that immediately downgradient of the Site, groundwater concentrations of PCE, TCE, 1,1-DCE and 1,4 dioxane are significantly elevated compared to upgradient concentrations. The Site is a suspected potential source of the regional groundwater contamination. Sensitive species located in the vicinity of the Site include the Davidson bushmallow shrub, the coastal California gnatcatcher bird, and white rabbit tobacco wildflower plant. Work places are adjacent to the Site and the closest residential neighborhood is approximately .40 miles west of the Site. The closest sensitive population is an elementary school located approximately 1 mile northeast of the Site.

California Site Screening: Northrop Y-19
Project Triage Recommendations and EPA Decision

Final Triage Recommendation (EPA):

The former Northrop Y-19 site ("the Site") occupies approximately 5.38 acres and is located in an industrial/commercial area at 1401 East Orangethorpe Avenue, Fullerton, California. Northrop Corporation (predecessor of Northrop Grumman) leased the Site in 1982, and business operations took place from 1984 to 1990. The operations at the Site included electronic component assembly, painting, soldering, degreasing operations, and storage. The Site was considered a satellite facility for another Northrop facility located at 500 East Orangethorpe Avenue. The owner who leased the Site was McLachlan Investment Co. Currently, TCLW/Weil and Company owns the Site and Goton Tiles/Lapco currently occupies the Site. The company is a tile and flooring business that has operated since approximately 2008. Previous operators include Memorex Corporation (1979, audio tape manufacturer), and Cook-Sanders Wire/Bar (1977-operations utilized acid vats and galvanizing).

The United States Environmental Protection Agency (EPA) conducted a Resource Conservation and Recovery Act (RCRA) Compliance Evaluation in 1990. The EPA noted several violations including storage of hazardous waste for 371 days, failure to keep copies of manifests, biennial reports, hazardous waste personnel training program, and Contingency Plan on-site. EPA reported that the Site generated small amounts (less than 1 gallon per day) of 1,1,1-trichloroethane (1,1,1-TCA) from printed circuit board production.

In 1990, the Site conducted an environmental assessment. The environmental assessment reported that the Orange County Health Care Agency (OCHCA) conducted inspections infrequently and identified waste streams including paint wastes, paint filters, and 1,1,1-TCA. As a result of the RCRA inspection conducted in 1990, the OCHCA found that the Site did not keep copies of the manifests on-site. City of Fullerton Fire Department (FFD) records indicated the installation of 8,000 gallon underground paint storage tank on the north side of the facility building. Waste streams identified by FFD included propanol, naptha, epoxy reducer (solvent), 1,1,1-TCA, and Freon TF (trichloroflouroethane). One 3,500-gallon sump was known to exist at the Site. The sump was registered with the Regional Water Quality Control Board (RWQCB). According to the records, the sump was installed before it was subleased to the Site. The historical use of the sump is also unknown. The environmental assessment also reported several violations at the Site. The violations were associated with hazardous waste chemical spills in 1985 (vapor release from one drum of solvent), 1986 (5-7 gallons of waste spilled in the storage area), and 1987 (60 gallons of opaque liquid into drainage ditch).

In 2009, the Orange County Water District (OCWD) conducted a soil gas survey along the east and northern boundary of the existing building. Fourteen samples from seven locations were collected at 10 and 20 feet below ground surface (bgs). Results indicated detection of trichloroethylene (TCE), tetrachloroethene (PCE), and 1,1,1-TCA. Maximum TCE and PCE concentrations were 17 ug/l at 20 feet bgs and 3 ug/l at 10 feet bgs, respectively. 1,1,1-TCA was detected in only one sample at 1 ug/l at 20 feet bgs. The industrial screening values for TCE and PCE in soil gas are 0.48 ug/l and 2.08 ug/l, respectively.

Review of the Hazardous Waste Tracking System information indicates that the current operator generates hazardous waste including unspecified liquid mixture, liquid with halogenated organic compounds, TCE related waste, and non-halogenated solvent waste.

The nearby impacted drinking water well located approximately 3,800 feet east is impacted by PCE and TCE. An abandoned (but not destroyed) well located approximately 2,800 feet northeast is also impacted by PCE. Chemical data compiled by the OCWD indicate that immediately downgradient of the Site, groundwater concentrations of PCE, TCE, 1,1-DCE and 1,4 dioxane are significantly elevated compared to upgradient concentrations. The Site is a suspected potential source of the regional groundwater contamination.

Based on the analysis of available information, the Site is eligible for further Federal assessment under CERCLA. The Site is not currently being assessed or remediated by either DTSC or the RWQCB, therefore DTSC recommends that the site remains in EPA's active site universe until the nature of the release or potential release cited in the screening assessment can be confirmed. EPA concurs with DTSC recommendation and a PA has been started.

California Site Screening: Northrop Y-19
Project Triage Recommendations and EPA Decision

3.0 Part C: EPA Decision

Final Non-NPL Status: PA Start Needed

Date of Final Triage Decision: 05/26/2015

EPA Site Assessment Manager Concurrence

EPA Site Assessment Manager Date 05/26/2015

Electronically Signed by Kim Hoang

Reference:
DWR, 2004

Coastal Plain of Orange County Groundwater Basin

- Groundwater Basin Number: 8-1
- County: Orange
- Surface Area: 224,000 acres (350 square miles)

Basin Boundaries and Hydrology

The Coastal Plain of Orange County Groundwater Basin (Orange County Basin) underlies a coastal alluvial plain in the northwestern portion of Orange County. The basin is bounded by consolidated rocks exposed on the north in the Puente and Chino Hills, on the east in the Santa Ana Mountains, and on the south in the San Joaquin Hills. The basin is bounded by the Pacific Ocean on the southwest and by a low topographic divide approximated by the Orange County - Los Angeles County line on the northwest. The basin underlies the lower Santa Ana River watershed.

Hydrogeologic Information

Water Bearing Formations

The Orange County Basin is dominated by a deep structural depression containing a thick accumulation of fresh water-bearing interbedded marine and continental sand, silt and clay deposits (DWR 1967). The proportion of fine material generally increases toward the coast, dividing the basin into forebay and pressure areas (DWR 1967; OCWD 1999b). Consequently, most surface waters recharge through the coarser, more interconnected and permeable forebay deposits. Strata in this basin are faulted and folded, and may show rapid changes in grain size. The Newport-Inglewood fault zone parallels the coastline and generally forms a barrier to groundwater flow. Erosional channels filled with permeable alluvium break this barrier at the Alamitos and Talbert Gaps, providing an opportunity for saline water to flow inland.

The sediments containing easily recoverable fresh water extend to about 2,000 feet in depth (OCWD 1999b). Although water-bearing aquifers exist below that level, water quality and pumping lift make these materials economically unviable at present (OCWD 1999b). Upper, middle and lower aquifer systems are recognized in the basin. Well yields range from 500 to 4,500 gallons per minute, but are generally 2,000 to 3,000 gallons per minute.

Upper Aquifer System. This system includes Holocene alluvium, older alluvium, stream terraces, and the upper Pleistocene deposits represented by the La Habra Formation. It has an average thickness of about 800 feet and consists mostly of sand, gravel, and conglomerate with some silt and clay beds. Generally, the upper aquifer system contains a lower percentage of water-bearing strata in the northwest and coastal portions of the area where clays and clayey silts dominate. Accordingly, recharge from the surface to the groundwater basin may be minor in these areas. Recharge to the upper aquifer system occurs primarily in the northeastern portions of the basin (DWR 1967). The upper aquifer provides most of the irrigation water for the basin (Sharp 2000; OCWD 1999a,b).

Middle Aquifer System. This system includes the lower Pleistocene Coyote Hills and San Pedro Formations which have an average thickness of 1,600 feet and are composed of sand, gravel, and minor amounts of clay. The primary recharge of the middle aquifer system is derived from the Santa Ana River channel in the northeast near the town of Olive (DWR 1967). The middle aquifer system provides 90 to 95 percent of the groundwater for the basin (Sharp 2000; OCWD 1999a,b).

Lower Aquifer System. This system includes the Upper Fernando Group of upper Pliocene age and is composed of sand and conglomerate 350 to 500 feet thick. Electric logs of this aquifer indicate that it would probably yield large quantities of fresh water to wells (DWR 1967), but it is not utilized for groundwater production at present (Sharp 2000).

Restrictive Structures

There are three fault zones within this basin that impede groundwater flow (DWR 1967). The most prominent is the Newport-Inglewood fault zone, which trends northwest and is responsible for formation of the Newport-Inglewood uplift. This fault zone forms a barrier to groundwater flow to the southwest and marks the southwest edge of the thick aquifer materials important for groundwater production in the basin (DWR 1967). This barrier is breached by erosional channels filled with alluvium at the Alamitos and Talbert Gaps. Another northwest-trending system is the Whittier fault zone which forms the northeastern boundary of the basin along the Puente Hills. This fault forms a groundwater barrier except where it is breached by recent alluvial channels (DWR 1967). The Norwalk fault trends eastward along the southern edge of the Coyote Hills and is responsible for a lower groundwater level to the south (DWR 1967).

Recharge Areas

Recharge to the basin is derived from percolation of Santa Ana River flow, infiltration of precipitation, and injection into wells. The Santa Ana River flow contains natural flow, reclaimed water, and imported water that is spread in the basin forebay (OCWD 1999a,b). Historical groundwater flow was generally toward the ocean in the southwest, but modern pumping has caused water levels to drop below sea level inland of the Newport-Inglewood fault zone. This trough-shaped depression encourages sea water to migrate inland, contaminating the groundwater supply. Strategic lines of wells in the Alamitos and Talbert Gaps inject imported and reclaimed water to create a mound of water seaward of the pumping trough to protect the basin from seawater intrusion (OCWD 1999a,b).

Groundwater Level Trends

Groundwater levels are generally lower than the level in 1969, when the basin is considered to have been full (OCWD 1999a,b). The level in the forebay has generally stabilized, whereas the southern coastal area has declined steadily through time (OCWD 1999a,b). Since 1990, the magnitude of yearly groundwater level fluctuation has approximately doubled near the coast because of seasonal water demand and short-term storage programs, but has stayed the same in the forebay (OCWD 1999a). Average groundwater levels for the Orange County Basin have risen about 15 feet

since 1990, with average levels in the forebay area rising about 30 feet and average levels in the coastal area dropping a few feet (OCWD 1999a).

Groundwater Storage

Groundwater Storage Capacity. The total capacity of the Orange County Basin is 38,000,000 AF (DWR 1967).

Groundwater in Storage. As of 1998 storage of fresh water within the basin amounted to 37,700,000 AF (OCWD 2000).

Groundwater Budget (Type A)

Orange County Water District manages this groundwater basin using a detailed model of the basin to determine potential effects of changes in pumping and recharge. The district strives to meet its water supply demand with about 75 percent groundwater (OCWD 1999b). The district operates the basin to maintain about 200,000 af of dry storage, though this fluctuates because of seasonal patterns in recharge and pumping. Average dry storage remained fairly steady during 1995 through 1998 (OCWD 1999b), but increased to more than 400,000 af by September 2002 (OCWD 2002) because of a cycle of less rainfall in the region.
Orange County Water District (2000) reports a basin inflow of 258,413 af and an outflow of 342,823 af for the 1998-1999 water year. The inflow includes natural recharge (29,434 af), artificial recharge (222,755 af), and return of applied water (6,224 af). The outflow includes non-irrigation extraction (334,136 af) and irrigation extraction (8,687 af).

Groundwater Quality

Characterization. Water within the basin is primarily sodium-calcium bicarbonate (DWR 1967). Total dissolved solids range from 232 - 661 mg/L and average 475 mg/L (OCWD 2000). The average TDS content of 240 public supply wells is 507 mg/l with a range of 196 – 1,470 mg/l.

Impairments. Sea water intrusion near the coast (DWR 1967; OCWD 1999b). Colored water, from natural organic materials in the lower aquifer system (OCWD 1999b). Increasing salinity, high nitrates and MTBE (OCWD 1999b).

Water Quality in Public Supply Wells

Constituent Group[1]	Number of wells sampled[2]	Number of wells with a concentration above an MCL[3]
Inorganics – Primary	249	1
Radiological	253	5
Nitrates	267	15
Pesticides	268	0
VOCs and SVOCs	268	7
Inorganics – Secondary	249	21

[1] A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

[2] Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.
[3] Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	4 – 6,000; Average 2,020 gal/min	286 Well Completion Reports.
	Total depths (ft)	
Domestic	26-1,210; Average 270 ft	270 Well Completion Reports
Municipal/Irrigation	7-1,650; Average 540 ft	540 Well Completion Reports

Active Monitoring Data

Agency	**Parameter**	**Number of wells /measurement frequency**
OCWD	Water level	521 wells measured annually (Hintlian 2000).
OCWD	Water quality	411 wells measured 2-20 times/yr (Hintlian 2000).
Department of Health Services and cooperators	Title 22 water quality	240

Basin Management

Groundwater management:	Orange County Water District manages groundwater in the basin by authority granted to it in the California Water Code Appendix Chapter 40
Water agencies	
Public	City of Anaheim, City of Buena Park, East Orange CWD, City of Fountain Valley, City of Fullerton, City of Garden Grove, City of Huntington Beach, Irvine Ranch WD, City of La Palma, Mesa Consolidated WD, City of Newport Beach, City of Orange, Orange CWD, City of Santa Ana, City of Seal Beach, Serrano WD, City of Tustin, City of Westminster, Yorba Linda WD.
Private	Diamond Park MWC, Eastside Water Association, Harding Water, Liberty Park Water Association, Midway City MWC, McKesson Water Products, Oasis Drinking Waters, Page Avenue MWC, South Midway City WC, Southern California WC, Sparkletts Drinking Water Corporation, Woodbridge Village Homeowners Association.

References Cited

California Department of Water Resources (DWR). 1967. Progress Report on Ground Water Geology of the Coastal Plain of Orange County.

Hintlian, R. 2000. Orange County Water District. Written communication to Brian Moniz (DWR). August 29, 2000.

Orange County Water District (OCWD). 1999a. Engineer's Report on Ground Water Conditions, Water Supply and Basin Utilization in the Orange County Water District.

_____. 1999b. Master Plan Report.

_____. 2000. Engineer's Report on Ground Water Conditions, Water Supply and Basin Utilization in the Orange County Water District.

_____. 2002. Orange County Groundwater Basin Overdrafted Due to Increased Production and Recent Dry Years. OCWD Press Release, September 23, 2002. http://www.ocwd.com/_html/_pr/_pr02/pr02_0923_overdraft.htm.

Sharp, Gwen. 2000. Orange County Water District. Written communication to Nuna Tersibashian. July 21, 2000.

Errata

Substantive changes made to the basin description will be noted here.

Reference:
Envirostor, 2015

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
ENVIROSTOR

NORTHROP Y-19 (60002053)

SIGN UP FOR EMAIL ALERTS

1401 EAST ORANGETHORPE AVENUE
FULLERTON, CA 92831
ORANGE COUNTY
SITE TYPE: EVALUATION

PROJECT MANAGER: RAFAT ABBASI
SUPERVISOR: MANNY ALONZO
OFFICE: CLEANUP CYPRESS

Site Information

CLEANUP STATUS
ACTIVE AS OF 8/19/2014

SITE TYPE:	EVALUATION	**ENVIROSTOR ID:**	60002053
NATIONAL PRIORITIES LIST:	NO	**SITE CODE:**	401686
ACRES:	0.5 ACRES	**SPECIAL PROGRAM:**	EPA - PASI
APN:	NONE SPECIFIED	**FUNDING:**	EPA GRANT
CLEANUP OVERSIGHT AGENCIES:		**ASSEMBLY DISTRICT:**	65
DTSC - SITE CLEANUP PROGRAM - LEAD		**SENATE DISTRICT:**	29

Regulatory Profile

PAST USE(S) THAT CAUSED CONTAMINATION
NONE SPECIFIED

POTENTIAL CONTAMINANTS OF CONCERN	**POTENTIAL MEDIA AFFECTED**
NONE SPECIFIED	NONE SPECIFIED

Site History

0.34375 seconds

Reference:
EPA, 2017

EPA ID / SITE ID	SITE NAME / STREET 1 / STREET 2 / CITY, STATE / COUNTY NAME (FIPS CODE)	ZIP / CONG DIST.	LATITUDE / LONGITUDE / SOURCE	OU	ACTION CODE, NAME	SEQ	START (ACTUAL)	FINISH (ACTUAL)	QUAL	CURRENT ACTION LEAD
CAN000900265 0900265	TRIPLE SITE 811 EAST ARQUES AVENUE SUNNYVALE, CA SANTA CLARA (06085)	94086		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: Status Not Specified						
CAN000900306 0900306	ARNOLD ENGINEERING/UNIVERSAL MOLDING 1551 East Orangethorpe Ave FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900310 0900310	GOLDEN WEST TOWING EQUIPMENT 1850 E. Orangethorpe Avenue FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900323 0900323	KHYBER FOODS 1818 East Rosslynn FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900325 0900325	NORTHROP Y-19 1401 East Orangethorpe Ave FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf

EPA ID / SITE ID	SITE NAME / STREET 1 / STREET 2 / CITY, STATE / COUNTY NAME (FIPS CODE)	ZIP / CONG DIST.	LATITUDE / LONGITUDE / SOURCE	OU	ACTION CODE, NAME	SEQ	START (ACTUAL)	FINISH (ACTUAL)	QUAL	CURRENT ACTION LEAD
CAN000900337 0900337	AUTONETICS/RAYTHEON 310 E. Walnut Ave FULLERTON, CA ORANGE (06059)	92832		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900352 0900352	CBS FENDER 500 South Raymond Ave FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900354 0900354	FULLERTON MANUFACTURING 311 S. Highland Ave FULLERTON, CA ORANGE (06059)	92832		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900358 0900358	VISTA PAINT 2020 E. Orangethorpe Ave FULLERTON, CA ORANGE (06059)	92831		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: PA Start Needed ASSOCIATED SITE: CAN000900251ORANGE COUNTY NORTH BASIN						
				00	DS DISCVRY	1	05/26/2015	05/26/2015		EPA Perf
CAN000900378 0900378	SIMI VALLEY MERCURY 4100 Cochran Street SIMI VALLEY, CA VENTURA (06111)	93063		NPL STATUS: N FEDERAL FACILITY: N NON-NPL STATUS: Removal Only Site (No Site Assessment Work Needed)						

Reference:
EST, 2009

EST
ENVIRONMENTAL SUPPORT TECHNOLOGIES
a Division of Environmental Management Strategies, Inc.

ATTORNEY-CLIENT WORK PRODUCT
PRIVILEGED AND CONFIDENTIAL

May 15, 2009

Alex Wallace
Miller, Axline & Sawyer
1050 Fulton Avenue, Suite 100
Sacramento, California 95825

Subject: Soil Gas Survey Data Package Transmittal
Orange County Water District

Dear Mr. Wallace:

In accordance with our Standard Agreement for Professional Services, Environmental Support Technologies (EST) is pleased to submit the enclosed soil gas survey data package for the following site:

1. Former Northrop Y19 Site
   1401 East Orangethorpe Avenue
   Fullerton, California
   (May 7, 2009 Analytical Report)

Should you have any questions or comments please contact me at (949) 679-9500.

Sincerely,

Environmental Support Technologies

Michael Marello, PG, CHG, REA I
Project Manager/Senior Hydrogeologist

cc: David Mark/OCWD
EST Project File 2736

ATTORNEY-CLIENT WORK PRODUCT
PRIVILEGED AND CONFIDENTIAL

TABLE 1
Summary of Laboratory Analytical Data for
Volatile Organic Compounds in Soil Gas
Former Northrop Y19 Site, 1401 E. Orangethorpe Avenue, Fullerton CA

05/15/09 EST2736

Sample Number	Date (mm/dd/yy)	Depth ft. bgs	PCE (µg/L)	TCE (µg/L)	1,1,1-TCA (µg/L)	Other VOCs (µg/L)
Y19-SG1-10 (1PV)	04/30/09	10	2.3	ND<1	ND<1	ND<1
Y19-SG1-10 (3PV)	04/30/09	10	1.0	ND<1	ND<1	ND<1
Y19-SG1-10 (7PV)	04/30/09	10	1.2	ND<1	ND<1	ND<1
Y19-SG1-20 (1PV)	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG1-20 (3PV)	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG1-20 (7PV)	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG2-10	04/30/09	10	8.3	2.6	ND<1	ND<1
Y19-SG2-20	04/30/09	20	ND<1	17	ND<1	ND<1
Y19-SG3-10	04/30/09	10	1.5	ND<1	ND<1	ND<1
Y19-SG3-20	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG4-10	04/30/09	10	2.3	ND<1	ND<1	ND<1
Y19-SG4-20	04/30/09	20	ND<1	ND<1	1.0	ND<1
Y19-SG5-10	04/30/09	10	2.6	ND<1	ND<1	ND<1
Y19-SG5-20	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG6-10	04/30/09	10	3.0	ND<1	ND<1	ND<1
Y19-SG6-20	04/30/09	20	ND<1	ND<1	ND<1	ND<1
Y19-SG7-10	04/30/09	10	1.7	ND<1	ND<1	ND<1
Y19-SG7-20	04/30/09	20	ND<1	ND<1	ND<1	ND<1

Explanation

ft. bgs = feet below ground surface (approximate)

PV = purge volume

PCE = tetrachloroethene

TCE = trichloroethene

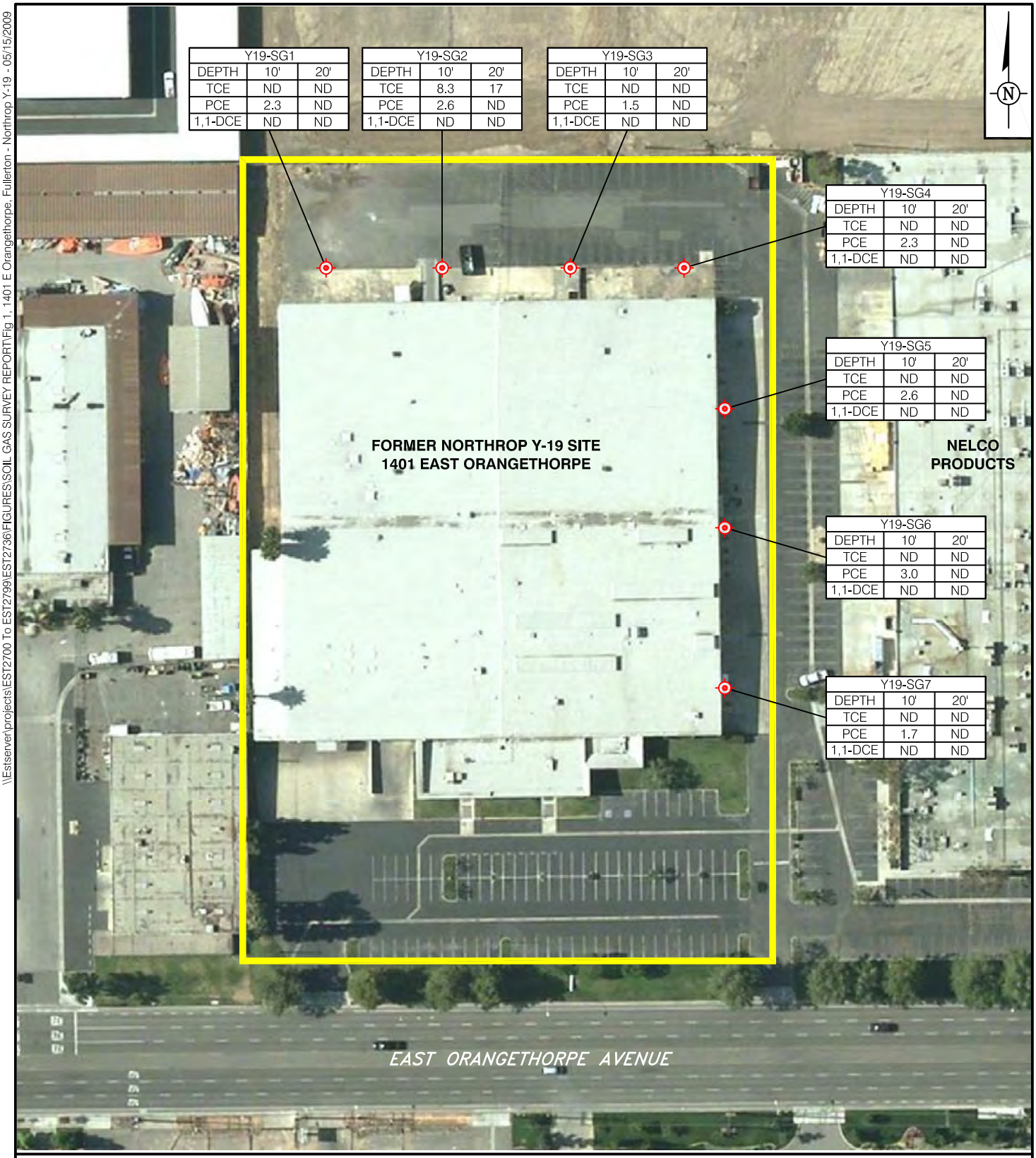
1,1,1-TCA = 1,1,1-trichloroethane

µg/L = micrograms per liter of soil gas

ND = not detected above reporting limit

Note: EPA 8260B VOCs not listed were not detected

\\Estserver\projects\EST2700 To EST2799\EST2736\FIGURES\SOIL GAS SURVEY REPORT\Fig 1, 1401 E Orangethorpe, Fullerton - Northrop Y-19 - 05/15/2009



0 100 200 FEET

APPROXIMATE SCALE

NOTE:

11-DCE - 1,1-DICHLOROETHENE
ND - NOT DETECTED
PCE - TETRACHLOROETHENE
TCE - TRICHLOROETHENE
CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER (µg/L) OF GAS

EXPLANATION

Y19-SG1 SOIL GAS SAMPLING LOCATIONS

FORMER NORTHROP Y-19 SITE

FIGURE 1

SOIL GAS SAMPLING POINTS AT THE FORMER NORTHROP Y-19 SITE 1401 EAST ORANGETHORPE AVENUE, FULLERTON, CALIFORNIA

ATTORNEY-CLIENT WORK PRODUCT
PRIVILEGED AND CONFIDENTIAL

EST 2736
SOIL GAS SURVEY REPORT

DRAWN BY: CM SCALE: AS SHOWN DATE: 04/22/2009

May 07, 2009

Mr. Michael Marello

Environmental Support Technologies

360 Goddard

Irvine, California 92618

RE: 1401 East Orangethorpe Avenue, Fullerton

Enclosed are the results of analyses for soil gas samples received by Environmental Support Technologies, Inc. laboratory on 04/30/09 12:59-04/30/09 13:45. The analyses were performed according to the prescribed method as outlined by EPA. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dien H. Nguyen

Dien H. Nguyen

Laboratory Director

Environmental Support Technologies laboratories are certified by the California Department of Health Services (CDHS), Environmental Laboratory Accreditation Program (ELAP) No's. 1996, 2511, and 2631.

360 Goddard, Irvine, California 92618
Telephone: (949) 679-9500 Fax: (949) 679-9501

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Analyzed
Y19-SG1-10 1(PV)	3D93001-01	Air	30-Apr-09 08:20	30-Apr-09 08:37
Y19-SG1-10 3(PV)	3D93001-02	Air	30-Apr-09 08:50	30-Apr-09 09:02
Y19-SG1-10 7(PV)	3D93001-03	Air	30-Apr-09 09:15	30-Apr-09 09:27
Y19-SG2-10	3D93001-04	Air	30-Apr-09 10:05	30-Apr-09 10:18
Y19-SG3-10	3D93001-05	Air	30-Apr-09 10:30	30-Apr-09 10:43
Y19-SG4-10	3D93001-06	Air	30-Apr-09 10:55	30-Apr-09 11:08
Y19-SG5-10	3D93001-07	Air	30-Apr-09 11:20	30-Apr-09 11:33
Y19-SG6-10	3D93001-08	Air	30-Apr-09 11:45	30-Apr-09 11:58
Y19-SG7-10	3D93001-09	Air	30-Apr-09 12:10	30-Apr-09 12:24
Y19-SG1-20 (1PV)	4D93001-01	Air	30-Apr-09 08:10	30-Apr-09 08:26
Y19-SG1-20 (3PV)	4D93001-02	Air	30-Apr-09 08:35	30-Apr-09 08:51
Y19-SG1-20 (7PV)	4D93001-03	Air	30-Apr-09 09:01	30-Apr-09 09:17
Y19-SG2-20	4D93001-04	Air	30-Apr-09 09:52	30-Apr-09 10:08
Y19-SG3-20	4D93001-05	Air	30-Apr-09 10:18	30-Apr-09 10:34
Y19-SG4-20	4D93001-06	Air	30-Apr-09 10:43	30-Apr-09 11:00
Y19-SG5-20	4D93001-07	Air	30-Apr-09 11:10	30-Apr-09 11:26
Y19-SG6-20	4D93001-08	Air	30-Apr-09 11:37	30-Apr-09 11:53
Y19-SG7-20	4D93001-09	Air	30-Apr-09 12:02	30-Apr-09 12:18

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 1(PV) (3D93001-01) Air	**Sampled: 04/30/09 08:20**	**Analyzed: 04/30/09 08:37**							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 1(PV) (3D93001-01) Air	**Sampled: 04/30/09 08:20**	**Analyzed: 04/30/09 08:37**							
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**2.3**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.3 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 3(PV) (3D93001-02) Air Sampled: 04/30/09 08:50 Analyzed: 04/30/09 09:02									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 3(PV) (3D93001-02) Air	**Sampled: 04/30/09 08:50**	**Analyzed: 04/30/09 09:02**							
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**1.0**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*97.9 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.2 %*		*75-125*	"	"	"	"	

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360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 7(PV) (3D93001-03) Air Sampled: 04/30/09 09:15 Analyzed: 04/30/09 09:27									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-10 7(PV) (3D93001-03) Air	**Sampled: 04/30/09 09:15**	**Analyzed: 04/30/09 09:27**							
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**1.2**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*97.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.5 %*		*75-125*		"	"	"	

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360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG2-10 (3D93001-04) Air Sampled: 04/30/09 10:05 Analyzed: 04/30/09 10:18									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG2-10 (3D93001-04) Air Sampled: 04/30/09 10:05 Analyzed: 04/30/09 10:18									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**2.6**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	**8.3**	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*99.5 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG3-10 (3D93001-05) Air Sampled: 04/30/09 10:30 Analyzed: 04/30/09 10:43									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG3-10 (3D93001-05) Air Sampled: 04/30/09 10:30 Analyzed: 04/30/09 10:43									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**1.5**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.5 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG4-10 (3D93001-06) Air Sampled: 04/30/09 10:55 Analyzed: 04/30/09 11:08									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG4-10 (3D93001-06) Air Sampled: 04/30/09 10:55 Analyzed: 04/30/09 11:08									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**2.3**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.8 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.4 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG5-10 (3D93001-07) Air Sampled: 04/30/09 11:20 Analyzed: 04/30/09 11:33									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG5-10 (3D93001-07) Air Sampled: 04/30/09 11:20 Analyzed: 04/30/09 11:33									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**2.6**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.8 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG6-10 (3D93001-08) Air Sampled: 04/30/09 11:45 Analyzed: 04/30/09 11:58									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG6-10 (3D93001-08) Air Sampled: 04/30/09 11:45 Analyzed: 04/30/09 11:58									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**3.0**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.2 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.1 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG7-10 (3D93001-09) Air Sampled: 04/30/09 12:10 Analyzed: 04/30/09 12:24									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG7-10 (3D93001-09) Air Sampled: 04/30/09 12:10 Analyzed: 04/30/09 12:24									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	39D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	**1.7**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.0 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.6 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (1PV) (4D93001-01) Air Sampled: 04/30/09 08:10 Analyzed: 04/30/09 08:26									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (1PV) (4D93001-01) Air Sampled: 04/30/09 08:10 Analyzed: 04/30/09 08:26									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.9 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*89.5 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (3PV) (4D93001-02) Air	**Sampled: 04/30/09 08:35**	**Analyzed: 04/30/09 08:51**							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (3PV) (4D93001-02) Air	**Sampled: 04/30/09 08:35**	**Analyzed: 04/30/09 08:51**							
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.7 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.7 %*		*75-125*		"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (7PV) (4D93001-03) Air Sampled: 04/30/09 09:01 Analyzed: 04/30/09 09:17									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG1-20 (7PV) (4D93001-03) Air	**Sampled: 04/30/09 09:01**	**Analyzed: 04/30/09 09:17**							
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.9 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*		*75-125*		"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG2-20 (4D93001-04) Air Sampled: 04/30/09 09:52 Analyzed: 04/30/09 10:08									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG2-20 (4D93001-04) Air Sampled: 04/30/09 09:52 Analyzed: 04/30/09 10:08									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	**17**	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.3 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.9 %*		*75-125*		"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG3-20 (4D93001-05) Air Sampled: 04/30/09 10:18 Analyzed: 04/30/09 10:34									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG3-20 (4D93001-05) Air Sampled: 04/30/09 10:18 Analyzed: 04/30/09 10:34									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*84.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG4-20 (4D93001-06) Air Sampled: 04/30/09 10:43 Analyzed: 04/30/09 11:00									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	**1.0**	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG4-20 (4D93001-06) Air Sampled: 04/30/09 10:43 Analyzed: 04/30/09 11:00									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	**1.0**	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*89.3 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG5-20 (4D93001-07) Air Sampled: 04/30/09 11:10 Analyzed: 04/30/09 11:26									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG5-20 (4D93001-07) Air Sampled: 04/30/09 11:10 Analyzed: 04/30/09 11:26									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*86.7 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.4 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG6-20 (4D93001-08) Air Sampled: 04/30/09 11:37 Analyzed: 04/30/09 11:53									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG6-20 (4D93001-08) Air Sampled: 04/30/09 11:37 Analyzed: 04/30/09 11:53									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.3 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*89.3 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.6 %*		*75-125*	"	"	"	"	

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Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG7-20 (4D93001-09) Air Sampled: 04/30/09 12:02 Analyzed: 04/30/09 12:18									
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon disulfide	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
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Volatile Organic Compounds

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Y19-SG7-20 (4D93001-09) Air Sampled: 04/30/09 12:02 Analyzed: 04/30/09 12:18									
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	49D3001	04/30/09	04/30/09	EPA 8260B	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
meta- and para-Xylenes	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
ortho-Xylene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
2-Propanol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*85.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
Blank (39D3001-BLK1)				Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,2-Trichloro-trifluoroethane	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
1,1-Dichloroethene	ND	1.0	"							
1,1-Dichloropropene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
2,2-Dichloropropane	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
Benzene	ND	1.0	"							
Bromobenzene	ND	1.0	"							
Bromochloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromomethane	ND	1.0	"							
Carbon disulfide	ND	1.0	"							
Carbon tetrachloride	ND	1.0	"							
Chlorobenzene	ND	1.0	"							

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
Blank (39D3001-BLK1)				Prepared & Analyzed: 04/30/09						
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	1.0	"							
Chloromethane	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
Dibromomethane	ND	1.0	"							
Dichlorodifluoromethane	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Hexachlorobutadiene	ND	1.0	"							
Isopropylbenzene	ND	1.0	"							
meta- and para-Xylenes	ND	1.0	"							
Methylene Chloride	ND	1.0	"							
Naphthalene	ND	1.0	"							
n-Butylbenzene	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
ortho-Xylene	ND	1.0	"							
p-Isopropyltoluene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
Styrene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
Tetrachloroethene	ND	1.0	"							
Toluene	ND	1.0	"							
trans-1,2-Dichloroethene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
Trichloroethene	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
2-Propanol	ND	10	"							
Surrogate: Dibromofluoromethane	*12.3*		*"*	*12.5*		*98.6*	*75-125*			
Surrogate: Toluene-d8	*12.5*		*"*	*12.5*		*99.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.3*		*"*	*12.5*		*98.4*	*75-125*			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
LCS (39D3001-BS1)				Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	13.6	1.0	ug/l	12.5		109	75-136			
1,1,1-Trichloroethane	13.3	1.0	"	12.5		107	73-134			
1,1,2,2-Tetrachloroethane	15.6	1.0	"	12.5		125	56-149			
1,1,2-Trichloroethane	16.0	1.0	"	12.5		128	67-137			
1,1,2-Trichloro-trifluoroethane	14.9	1.0	"	12.5		119	83-125			
1,1-Dichloroethane	13.5	1.0	"	12.5		108	80-121			
1,1-Dichloroethene	12.7	1.0	"	12.5		102	73-137			
1,1-Dichloropropene	13.4	1.0	"	12.5		107	77-122			
1,2,3-Trichlorobenzene	14.8	1.0	"	12.5		118	67-133			
1,2,3-Trichloropropane	15.1	1.0	"	12.5		121	56-145			
1,2,4-Trichlorobenzene	12.6	1.0	"	12.5		100	71-135			
1,2,4-Trimethylbenzene	11.8	1.0	"	12.5		94.5	76-120			
1,2-Dibromo-3-chloropropane	12.1	1.0	"	12.5		96.7	43-158			
1,2-Dibromoethane	16.3	1.0	"	12.5		131	80-123			QL-H
1,2-Dichlorobenzene	13.1	1.0	"	12.5		104	67-139			
1,2-Dichloroethane	12.2	1.0	"	12.5		97.8	75-131			
1,2-Dichloropropane	13.3	1.0	"	12.5		106	62-144			
1,3,5-Trimethylbenzene	12.6	1.0	"	12.5		101	78-125			
1,3-Dichlorobenzene	13.3	1.0	"	12.5		106	82-120			
1,3-Dichloropropane	18.1	1.0	"	12.5		144	61-145			
1,4-Dichlorobenzene	12.9	1.0	"	12.5		103	84-120			
2,2-Dichloropropane	12.0	1.0	"	12.5		95.9	76-134			
2-Chlorotoluene	12.6	1.0	"	12.5		101	78-127			
4-Chlorotoluene	12.6	1.0	"	12.5		101	77-127			
Benzene	12.5	1.0	"	12.5		100	79-118			
Bromobenzene	13.3	1.0	"	12.5		107	69-140			
Bromochloromethane	13.5	1.0	"	12.5		108	61-141			
Bromodichloromethane	13.5	1.0	"	12.5		108	67-137			
Bromoform	14.0	1.0	"	12.5		112	57-152			
Bromomethane	9.72	1.0	"	12.5		77.8	51-148			
Carbon disulfide	12.9	1.0	"	12.5		103	61-140			
Carbon tetrachloride	13.2	1.0	"	12.5		106	74-143			
Chlorobenzene	12.9	1.0	"	12.5		103	67-140			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
LCS (39D3001-BS1)				Prepared & Analyzed: 04/30/09						
Chloroethane	12.3	1.0	ug/l	12.5		98.3	60-137			
Chloroform	13.7	1.0	"	12.5		110	82-119			
Chloromethane	13.6	1.0	"	12.5		109	58-139			
cis-1,2-Dichloroethene	13.4	1.0	"	12.5		107	85-116			
cis-1,3-Dichloropropene	13.9	1.0	"	12.5		111	66-142			
Dibromochloromethane	13.1	1.0	"	12.5		105	61-140			
Dibromomethane	16.5	1.0	"	12.5		132	66-143			
Dichlorodifluoromethane	10.8	1.0	"	12.5		86.2	47-129			
Ethylbenzene	12.6	1.0	"	12.5		101	83-115			
Hexachlorobutadiene	12.7	1.0	"	12.5		101	71-145			
Isopropylbenzene	12.4	1.0	"	12.5		99.0	85-116			
meta- and para-Xylenes	24.0	1.0	"	25.0		96.2	83-115			
Methylene Chloride	13.7	1.0	"	12.5		110	81-126			
Naphthalene	14.6	1.0	"	12.5		117	56-136			
n-Butylbenzene	12.8	1.0	"	12.5		102	60-149			
n-Propylbenzene	12.6	1.0	"	12.5		100	77-129			
ortho-Xylene	13.4	1.0	"	12.5		107	85-115			
p-Isopropyltoluene	12.4	1.0	"	12.5		99.6	63-144			
sec-Butylbenzene	12.6	1.0	"	12.5		100	78-128			
Styrene	12.5	1.0	"	12.5		99.9	65-142			
tert-Butylbenzene	12.6	1.0	"	12.5		100	79-128			
Tetrachloroethene	13.0	1.0	"	12.5		104	66-144			
Toluene	12.4	1.0	"	12.5		99.0	70-115			
trans-1,2-Dichloroethene	12.8	1.0	"	12.5		102	72-133			
trans-1,3-Dichloropropene	15.8	1.0	"	12.5		126	68-140			
Trichloroethene	13.7	1.0	"	12.5		110	68-132			
Trichlorofluoromethane	13.2	1.0	"	12.5		106	62-144			
Vinyl Chloride	12.8	1.0	"	12.5		102	66-137			
Surrogate: Dibromofluoromethane	*12.7*		*"*	*12.5*		*101*	*75-125*			
Surrogate: Toluene-d8	*12.6*		*"*	*12.5*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.5*		*"*	*12.5*		*100*	*75-125*			

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
Duplicate (39D3001-DUP1)	**Source: 3D93001-03**			Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l		ND				50	
1,1,1-Trichloroethane	ND	1.0	"		ND				50	
1,1,2,2-Tetrachloroethane	ND	1.0	"		ND				50	
1,1,2-Trichloroethane	ND	1.0	"		ND				50	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"		ND				50	
1,1-Dichloroethane	ND	1.0	"		ND				50	
1,1-Dichloroethene	ND	1.0	"		ND				50	
1,1-Dichloropropene	ND	1.0	"		ND				50	
1,2,3-Trichlorobenzene	ND	1.0	"		ND				50	
1,2,3-Trichloropropane	ND	1.0	"		ND				50	
1,2,4-Trichlorobenzene	ND	1.0	"		ND				50	
1,2,4-Trimethylbenzene	ND	1.0	"		ND				50	
1,2-Dibromo-3-chloropropane	ND	1.0	"		ND				50	
1,2-Dibromoethane	ND	1.0	"		ND				50	
1,2-Dichlorobenzene	ND	1.0	"		ND				50	
1,2-Dichloroethane	ND	1.0	"		ND				50	
1,2-Dichloropropane	ND	1.0	"		ND				50	
1,3,5-Trimethylbenzene	ND	1.0	"		ND				50	
1,3-Dichlorobenzene	ND	1.0	"		ND				50	
1,3-Dichloropropane	ND	1.0	"		ND				50	
1,4-Dichlorobenzene	ND	1.0	"		ND				50	
2,2-Dichloropropane	ND	1.0	"		ND				50	
2-Chlorotoluene	ND	1.0	"		ND				50	
4-Chlorotoluene	ND	1.0	"		ND				50	
Benzene	ND	1.0	"		ND				50	
Bromobenzene	ND	1.0	"		ND				50	
Bromochloromethane	ND	1.0	"		ND				50	
Bromodichloromethane	ND	1.0	"		ND				50	
Bromoform	ND	1.0	"		ND				50	
Bromomethane	ND	1.0	"		ND				50	
Carbon disulfide	ND	1.0	"		ND				50	
Carbon tetrachloride	ND	1.0	"		ND				50	
Chlorobenzene	ND	1.0	"		ND				50	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 39D3001 - Volatiles										
Duplicate (39D3001-DUP1)	**Source: 3D93001-03**		Prepared & Analyzed: 04/30/09							
Chloroethane	ND	1.0	ug/l		ND				50	
Chloroform	ND	1.0	"		ND				50	
Chloromethane	ND	1.0	"		ND				50	
cis-1,2-Dichloroethene	ND	1.0	"		ND				50	
cis-1,3-Dichloropropene	ND	1.0	"		ND				50	
Dibromochloromethane	ND	1.0	"		ND				50	
Dibromomethane	ND	1.0	"		ND				50	
Dichlorodifluoromethane	ND	1.0	"		ND				50	
Ethylbenzene	ND	1.0	"		ND				50	
Hexachlorobutadiene	ND	1.0	"		ND				50	
Isopropylbenzene	ND	1.0	"		ND				50	
meta- and para-Xylenes	0.160	1.0	"		0.200			22.2	50	
Methylene Chloride	ND	1.0	"		ND				50	
Naphthalene	ND	1.0	"		ND				50	
n-Butylbenzene	ND	1.0	"		ND				50	
n-Propylbenzene	ND	1.0	"		ND				50	
ortho-Xylene	ND	1.0	"		ND				50	
p-Isopropyltoluene	ND	1.0	"		ND				50	
sec-Butylbenzene	ND	1.0	"		ND				50	
Styrene	ND	1.0	"		ND				50	
tert-Butylbenzene	ND	1.0	"		ND				50	
Tetrachloroethene	0.690	1.0	"		1.25			57.7	50	QR-04
Toluene	0.270	1.0	"		0.290			7.14	50	
trans-1,2-Dichloroethene	ND	1.0	"		ND				50	
trans-1,3-Dichloropropene	ND	1.0	"		ND				50	
Trichloroethene	ND	1.0	"		ND				50	
Trichlorofluoromethane	ND	1.0	"		ND				50	
Vinyl Chloride	ND	1.0	"		ND				50	
2-Propanol	ND	10	"		ND				200	
Surrogate: Dibromofluoromethane	*13.0*		*"*	*12.5*		*104*	*75-125*			
Surrogate: Toluene-d8	*12.6*		*"*	*12.5*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.4*		*"*	*12.5*		*99.4*	*75-125*			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
Blank (49D3001-BLK1)				Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,2-Trichloro-trifluoroethane	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
1,1-Dichloroethene	ND	1.0	"							
1,1-Dichloropropene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
2,2-Dichloropropane	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
Benzene	ND	1.0	"							
Bromobenzene	ND	1.0	"							
Bromochloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromomethane	ND	1.0	"							
Carbon disulfide	ND	1.0	"							
Carbon tetrachloride	ND	1.0	"							
Chlorobenzene	ND	1.0	"							

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
Blank (49D3001-BLK1)				Prepared & Analyzed: 04/30/09						
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	1.0	"							
Chloromethane	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
Dibromomethane	ND	1.0	"							
Dichlorodifluoromethane	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Hexachlorobutadiene	ND	1.0	"							
Isopropylbenzene	ND	1.0	"							
meta- and para-Xylenes	ND	1.0	"							
Methylene Chloride	ND	1.0	"							
Naphthalene	ND	1.0	"							
n-Butylbenzene	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
ortho-Xylene	ND	1.0	"							
p-Isopropyltoluene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
Styrene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
Tetrachloroethene	ND	1.0	"							
Toluene	ND	1.0	"							
trans-1,2-Dichloroethene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
Trichloroethene	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
2-Propanol	ND	10	"							
Surrogate: Dibromofluoromethane	*12.6*		*"*	*12.5*		*101*	*75-125*			
Surrogate: Toluene-d8	*11.3*		*"*	*12.5*		*90.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.2*		*"*	*12.5*		*97.2*	*75-125*			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
LCS (49D3001-BS1)				Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	12.9	1.0	ug/l	12.5		103	75-136			
1,1,1-Trichloroethane	12.9	1.0	"	12.5		103	73-134			
1,1,2,2-Tetrachloroethane	11.5	1.0	"	12.5		92.2	56-149			
1,1,2-Trichloroethane	12.8	1.0	"	12.5		102	67-137			
1,1,2-Trichloro-trifluoroethane	14.3	1.0	"	12.5		114	83-125			
1,1-Dichloroethane	12.5	1.0	"	12.5		99.7	80-121			
1,1-Dichloroethene	12.9	1.0	"	12.5		103	73-137			
1,1-Dichloropropene	12.6	1.0	"	12.5		101	77-122			
1,2,3-Trichlorobenzene	13.0	1.0	"	12.5		104	67-133			
1,2,3-Trichloropropane	11.9	1.0	"	12.5		95.0	56-145			
1,2,4-Trichlorobenzene	12.8	1.0	"	12.5		102	71-135			
1,2,4-Trimethylbenzene	12.3	1.0	"	12.5		98.1	76-120			
1,2-Dibromo-3-chloropropane	13.7	1.0	"	12.5		110	43-158			
1,2-Dibromoethane	12.7	1.0	"	12.5		102	80-123			
1,2-Dichlorobenzene	12.5	1.0	"	12.5		99.8	67-139			
1,2-Dichloroethane	12.2	1.0	"	12.5		97.9	75-131			
1,2-Dichloropropane	12.2	1.0	"	12.5		97.7	62-144			
1,3,5-Trimethylbenzene	12.9	1.0	"	12.5		103	78-125			
1,3-Dichlorobenzene	12.6	1.0	"	12.5		101	82-120			
1,3-Dichloropropane	12.3	1.0	"	12.5		98.3	61-145			
1,4-Dichlorobenzene	12.6	1.0	"	12.5		101	84-120			
2,2-Dichloropropane	10.7	1.0	"	12.5		85.3	76-134			
2-Chlorotoluene	13.1	1.0	"	12.5		105	78-127			
4-Chlorotoluene	12.6	1.0	"	12.5		101	77-127			
Benzene	12.0	1.0	"	12.5		95.7	79-118			
Bromobenzene	12.6	1.0	"	12.5		100	69-140			
Bromochloromethane	11.4	1.0	"	12.5		91.5	61-141			
Bromodichloromethane	13.1	1.0	"	12.5		105	67-137			
Bromoform	12.7	1.0	"	12.5		102	57-152			
Bromomethane	12.3	1.0	"	12.5		98.2	51-148			
Carbon disulfide	12.0	1.0	"	12.5		96.0	61-140			
Carbon tetrachloride	11.8	1.0	"	12.5		94.7	74-143			
Chlorobenzene	12.6	1.0	"	12.5		101	67-140			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
LCS (49D3001-BS1)				Prepared & Analyzed: 04/30/09						
Chloroethane	13.2	1.0	ug/l	12.5		105	60-137			
Chloroform	12.8	1.0	"	12.5		102	82-119			
Chloromethane	17.0	1.0	"	12.5		136	58-139			
cis-1,2-Dichloroethene	12.8	1.0	"	12.5		103	85-116			
cis-1,3-Dichloropropene	12.5	1.0	"	12.5		99.9	66-142			
Dibromochloromethane	13.2	1.0	"	12.5		106	61-140			
Dibromomethane	13.0	1.0	"	12.5		104	66-143			
Dichlorodifluoromethane	10.7	1.0	"	12.5		85.8	47-129			
Ethylbenzene	12.6	1.0	"	12.5		101	83-115			
Hexachlorobutadiene	13.8	1.0	"	12.5		110	71-145			
Isopropylbenzene	12.8	1.0	"	12.5		102	85-116			
meta- and para-Xylenes	25.2	1.0	"	25.0		101	83-115			
Methylene Chloride	12.4	1.0	"	12.5		99.6	81-126			
Naphthalene	12.0	1.0	"	12.5		95.9	56-136			
n-Butylbenzene	12.8	1.0	"	12.5		102	60-149			
n-Propylbenzene	12.8	1.0	"	12.5		102	77-129			
ortho-Xylene	12.9	1.0	"	12.5		103	85-115			
p-Isopropyltoluene	12.8	1.0	"	12.5		102	63-144			
sec-Butylbenzene	12.7	1.0	"	12.5		102	78-128			
Styrene	12.7	1.0	"	12.5		101	65-142			
tert-Butylbenzene	12.8	1.0	"	12.5		103	79-128			
Tetrachloroethene	13.8	1.0	"	12.5		110	66-144			
Toluene	12.2	1.0	"	12.5		97.4	70-115			
trans-1,2-Dichloroethene	12.4	1.0	"	12.5		99.4	72-133			
trans-1,3-Dichloropropene	12.3	1.0	"	12.5		98.4	68-140			
Trichloroethene	12.7	1.0	"	12.5		101	68-132			
Trichlorofluoromethane	13.2	1.0	"	12.5		106	62-144			
Vinyl Chloride	12.9	1.0	"	12.5		103	66-137			
Surrogate: Dibromofluoromethane	*12.2*		*"*	*12.5*		*97.6*	*75-125*			
Surrogate: Toluene-d8	*11.6*		*"*	*12.5*		*93.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.3*		*"*	*12.5*		*98.2*	*75-125*			

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
Duplicate (49D3001-DUP1)		**Source: 4D93001-03**		Prepared & Analyzed: 04/30/09						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l		ND				50	
1,1,1-Trichloroethane	ND	1.0	"		ND				50	
1,1,2,2-Tetrachloroethane	ND	1.0	"		ND				50	
1,1,2-Trichloroethane	ND	1.0	"		ND				50	
1,1,2-Trichloro-trifluoroethane	ND	1.0	"		ND				50	
1,1-Dichloroethane	ND	1.0	"		ND				50	
1,1-Dichloroethene	ND	1.0	"		ND				50	
1,1-Dichloropropene	ND	1.0	"		ND				50	
1,2,3-Trichlorobenzene	ND	1.0	"		ND				50	
1,2,3-Trichloropropane	ND	1.0	"		ND				50	
1,2,4-Trichlorobenzene	ND	1.0	"		ND				50	
1,2,4-Trimethylbenzene	0.160	1.0	"		0.150			6.45	50	
1,2-Dibromo-3-chloropropane	ND	1.0	"		ND				50	
1,2-Dibromoethane	ND	1.0	"		ND				50	
1,2-Dichlorobenzene	ND	1.0	"		ND				50	
1,2-Dichloroethane	ND	1.0	"		ND				50	
1,2-Dichloropropane	ND	1.0	"		ND				50	
1,3,5-Trimethylbenzene	0.110	1.0	"		0.100			9.52	50	
1,3-Dichlorobenzene	ND	1.0	"		ND				50	
1,3-Dichloropropane	ND	1.0	"		ND				50	
1,4-Dichlorobenzene	ND	1.0	"		ND				50	
2,2-Dichloropropane	ND	1.0	"		ND				50	
2-Chlorotoluene	ND	1.0	"		ND				50	
4-Chlorotoluene	ND	1.0	"		ND				50	
Benzene	ND	1.0	"		ND				50	
Bromobenzene	ND	1.0	"		ND				50	
Bromochloromethane	ND	1.0	"		ND				50	
Bromodichloromethane	ND	1.0	"		ND				50	
Bromoform	ND	1.0	"		ND				50	
Bromomethane	ND	1.0	"		ND				50	
Carbon disulfide	ND	1.0	"		ND				50	
Carbon tetrachloride	ND	1.0	"		ND				50	
Chlorobenzene	ND	1.0	"		ND				50	

Environmental Support Technologies	Project: 1401 East Orangethorpe Avenue, Fullerton	
360 Goddard	Project Number: EST2736	**Reported:**
Irvine, California 92618	Project Manager: Mr. Michael Marello	07-May-09 13:04

Volatile Organic Compounds - Quality Control

Environmental Support Technologies

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 49D3001 - Volatiles										
Duplicate (49D3001-DUP1)	**Source: 4D93001-03**		Prepared & Analyzed: 04/30/09							
Chloroethane	ND	1.0	ug/l		ND				50	
Chloroform	ND	1.0	"		ND				50	
Chloromethane	ND	1.0	"		ND				50	
cis-1,2-Dichloroethene	ND	1.0	"		ND				50	
cis-1,3-Dichloropropene	ND	1.0	"		ND				50	
Dibromochloromethane	ND	1.0	"		ND				50	
Dibromomethane	ND	1.0	"		ND				50	
Dichlorodifluoromethane	ND	1.0	"		ND				50	
Ethylbenzene	0.110	1.0	"		0.110			0.00	50	
Hexachlorobutadiene	ND	1.0	"		ND				50	
Isopropylbenzene	ND	1.0	"		ND				50	
meta- and para-Xylenes	0.270	1.0	"		0.270			0.00	50	
Methylene Chloride	ND	1.0	"		ND				50	
Naphthalene	ND	1.0	"		ND				50	
n-Butylbenzene	ND	1.0	"		ND				50	
n-Propylbenzene	ND	1.0	"		ND				50	
ortho-Xylene	ND	1.0	"		ND				50	
p-Isopropyltoluene	ND	1.0	"		ND				50	
sec-Butylbenzene	ND	1.0	"		ND				50	
Styrene	ND	1.0	"		ND				50	
tert-Butylbenzene	ND	1.0	"		ND				50	
Tetrachloroethene	ND	1.0	"		ND				50	
Toluene	0.190	1.0	"		0.190			0.00	50	
trans-1,2-Dichloroethene	ND	1.0	"		ND				50	
trans-1,3-Dichloropropene	ND	1.0	"		ND				50	
Trichloroethene	ND	1.0	"		ND				50	
Trichlorofluoromethane	ND	1.0	"		ND				50	
Vinyl Chloride	ND	1.0	"		ND				50	
2-Propanol	ND	10	"		ND				200	
Surrogate: Dibromofluoromethane	*12.8*		*"*	*12.5*		*102*	*75-125*			
Surrogate: Toluene-d8	*10.8*		*"*	*12.5*		*86.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*12.4*		*"*	*12.5*		*98.8*	*75-125*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

QR-04	The RPD result for this analyte in the sample exceeded the QC control limits; however, the RPD for other analytes were within the QC control limits.
QL-H	The spike recovery was out high for the LCS and/or the LCSD; however the analyte was not detected in any of the analyzed samples.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
39D3001-DUP1	8260B (SG)	Tetrachloroethene	QR-04: The RPD result for this analyte in the sample exceeded the QC control limits; however, the RP
39D3001-BS1	8260B (SG)	1,2-Dibromoethane	QL-H: The spike recovery was out high for the LCS and/or the LCSD; however the analyte was not detec
39D3001-DUP1	8260B (SG)	Tetrachloroethene	Exceeds RPD limit
39D3001-BS1	8260B (SG)	1,2-Dibromoethane	Exceeds upper control limit
			VERSION 5.8.5:2734
			Default Report (not modified)

Reference:
FFD, 1987

Disclosure Information Deleted from the system on:

Monday, April 12, 1993

File # : 00147 Date Entered : 11/19/90

Business Name : Northorp Electronics Systems Division

Address: 1401 E Orangethorpe Ave 92631
Fullerton, Ca 92631

Bus Phone (714) 441-4105

Mailing Address :
Northorp Electronics Systems Division
500 E. Orangethorpe Ave.
Anaheim,, CA 92801

Sic# : Dunn & Brad # : BL# : 20232

EPA # :

Contacts:

Property Owner Address

Business Description :

Date Printed: 4/12/93

Exhibit B

WITHIN 15 DAYS OF ANY OF THE FOLLOWING EVENTS, ANY BUSINESS SHALL CONTACT THE FULLERTON FIRE DEPARTMENT, HAZARDOUS MATERIALS SECTION FOR AN UPDATED DISCLOSURE FORM.

1) Change of business address.
2) Change of business ownership.
3) Change of business name.
4) Cessation of business operations.
5) Use or handling of previously undisclosed hazardous materials.
6) A significant change in the use, quantity or handling of a hazardous material for which disclosure has previously been made.

PART IV: SIGNATURE

I certify, under the penalty of perjury, that the above information is true and correct to the best of my knowledge.

K D Erwin
Signature

Kenneth D. Erwin
Name (please type or print)

Manager, Occupational Health, Safety & Environmental Administration
Title

May 8, 1987
Date

Return Form Within 15 Days to:
FULLERTON FIRE DEPT.
312 E. Commonwealth
Fullerton, CA 92632

OFFICE USE ONLY

Y-5

FULLERTON FIRE DEPARTMENT

HAZARDOUS MATERIALS DISCLOSURE FORM

PART I: (Check One)

____ No chemical(s) are used in any way. (Complete Parts II-A and IV)

____ Chemicals are used in our company, but do not meet the requirements for disclosure (including chemicals that require disclosure in any amounts). (Complete Parts II-A and IV)

X Chemicals are used in our business. (Complete disclosure form, Parts II-IV)

Mailing address
500 E. Orangethorpe
Anaheim, Ca 92801
Attn: Carl Endes
-5330-Y10

PART II: GENERAL INFORMATION

A
BUSINESS NAME: Northrop Corporation, Electro-Mechanical Division
BUSINESS ADDRESS: Mail 500 East Orangethorpe Avenue | SUITE: CA | ZIP CODE: 92801
MAILING ADDRESS (If Different) | SUITE | ZIP CODE
BUSINESS PHONE: (714) 441-3774

B
NAME: ~~Jacquie Smith~~ Carl Endes — CONTACT (during business hours) | TITLE: Industrial Hygienist
[redacted] — PHONE
CONTACT 1 EMERGENCY (after business hours) [redacted] — PHONE
CONTACT 2 EMERGENCY (after business hours) [redacted] — PHONE
TAX ID # [redacted] — RENEWAL DATE
SIC CODE # [redacted]
DESCRIPTION OF BUSINESS OPERATION: Aerospace

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NGSC-NGC000008

PART III | OFFICE USE ONLY: 1 ____ 2 ____ 3 ____ 4 ____ | PAGE 2 OF

BUSINESS NAME _____ BUSINESS ADDRESS _____

Separate form required for each business address.
Xerox for additional forms.

	1. Chemical Name (CN) Common or Trade Name (TN) If a mixture (MIX), list 3 major or most hazardous ingredients. Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN	Pro/Seal 501/Part A		UN2810	FL	108941 90722 68611506	Flammable cabinet	1 kit	[redacted]	Electrical Assembly
TN	Epoxy Resin								
MIX	Cyclohexane, 2,4,6 - Tri-(Dimethylamino-methyl) Phinol, Plysulfide Liquid Polymer								
CN	Irridate 14-2		UN1755	OX	16893859 1333820 10022318	Tank	1 gallon	[redacted]	Electrical Assembly
TN	Chromic Acid								
MIX	Sodium Silicofluoride, Chromic Acid, Barium Nitrate								
CN	Adhesive - Sealant 242		NA9189	FL	25852475 9004966 81072 7631869	Flammable cabinet	1 ounce	[redacted]	Electrical Assembly
TN									
MIX	Polyglycol Oleates, Saccharin, Silicon Dioxide, Polyglycol Dimethacrylates								
CN	Krylon Crystal Clear Spray Coating		UN1992	FL	67641 75285 142825 64742946	Flammable cabinet	1 13 oz. can	[redacted]	Electrical Assembly Paint Process
TN									
MIX	Acetone, Isobutane, Heptane, Naptha								

TABLE 1
Department Of Transportation Classifications
Use abbreviations only. See shipping papers for information

EA	Explosive A	PY	Pyrophoric or Spontaneously Combustible	CL	Combustible Liquid
EB	Explosive B			FS	Flammable Solid Water Reactive
EC	Explosive C			RA	Radioactive
BA	Blasting Agent	PA	A-Poison Gas	OX	Oxidizer
FG	Flammable Gas	PB	B-Poison Liquid/Solid	OP	Organic Peroxide
NG	Non Flammable Gas	FL	Flammable Liquid		

ET	Etiologic Agent
OR	Other Regulated Material
CO	Corrosive
IR	Irritating Agent

TABLE 2 – How Stored
List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Boxe(s)
10. Bag(s)
11. Metal Containers (not drums)
12. In Machinery or Processing Equipment
13. Other (specify)

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NGSC-NGC000009

PART III | OFFICE USE ONLY: 1 | 2 | 3 | 4 | PAGE 1 OF 1

BUSINESS NAME _____ BUSINESS ADDRESS _____

Separate form required for each business address.
Xerox for additional forms.

	1. Chemical Name (CN) / Common or Trade Name (TN) / If a mixture (MIX), list 3 major or most hazardous ingredients. Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN	Tap Magic Cutting Fluid		UN2831	OR	71556 68815101 104552	Work Environment	1 quart	[redacted]	Electrical Assembly
TN									
MIX	1,1,1 Tri-chloroethane, Petroleum Distillate, Vegetable Oil								
CN	LPS.1 Greaseless Lubricant		NA1993	FL	64742967 64742069 124389	Flammable cabinet	15 ozs.	[redacted]	Electrical Assembly
TN									
MIX	Aliphatic Hydrocarbon, Aliphatic Petroleum Naptha, Carbon Dioxide Propellant								
CN	Krylon Interior/Exterior Spray Enamel		OKM-D NA1993	CO	67641 74986 108101 76933	Work environment	1 16 oz. can	[redacted]	Electrical Assembly
TN	Aerosol Spray Paint								
MIX	Acetone, Propane, MEK, MIK								
CN	Scotch Grip 1357 High Performance Adhesive		UN1219	FL	76933 108101	Flammable cabinet	3 16 oz. can	[redacted]	Electrical Assembly
TN	Contact Adhesive								
MIX	MIK, MEK								

TABLE 1
Department Of Transportation Classifications
Use abbreviations only. See shipping papers for information

EA	Explosive A	PY	Pyrophoric or Spontaneously Combustible	CL	Combustible Liquid
EB	Explosive B			FS	Flammable Solid Water Reactive
EC	Explosive C				
BA	Blasting Agent	PA	A—Poison Gas	RA	Radioactive
FG	Flammable Gas	PB	B—Poison Liquid/Solid	OX	Oxidizer
NG	Non flammable Gas	FL	Flammable Liquid	OP	Organic Peroxide
				ET	Etiologic Agent
				OR	Other Regulated Material
				CO	Corrosive
				IR	Irritating Agent

TABLE 2 — How Stored
List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Can(s)
10. Bag(s)
11. Metal Containers (not drums)
12. In Machinary or Processing Equipment
13. Other (specify)

FIRE-141

PART III

OFFICE USE ONLY: 1 2 3 4

BUSINESS NAME

BUSINESS ADDRESS

Separate form required for each business address.
Xerox for additional forms.

1. Chemical Name (CN) Common or Trade Name (TN) If a mixture (MIX), list 3 major or most hazardous ingredients. Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN LPS2 TN G.P. Lubricant MIX Aliphatic Hydrocarbon 70%		NA 1943	IR	64742967	Flammable cabinet	1 gallon	[redacted]	Used as a lubricant
CN U1920 Black Lacquer 17038 TN None listed MIX IBA Isobutyl Acetate, MEK, Lacolene, Naptha		UN1263	FL	110190 78933 64742898 8030306	Flammable cabinet	1 spray can	[redacted]	Paint process Electrical Assembly
CN Industrial Marking Ink TN Ink MIX Isopropyl Alcohol		UN1219	FL	67630	Flammable cabinet	32 bottles	[redacted]	Electrical Assembly
CN Scotch Grip 1357 High Performance Contact TN Contact Adhesive MIX None listed		UN1219	FL	None listed	Flammable cabinet	5 gallons	[redacted]	Electrical Assembly

TABLE 1

Department Of Transportation Classifications

Use abbreviations only. See shipping papers for information

EA Explosive A	PY Pyrophoric or Spontaneously Combustible	CL Combustible Liquid	ET Etiologic Agent		
EB Explosive B		FS Flammable Solid Water Reactive	OR Other Regulated Material		
EC Explosive C					
BA Blasting Agent	PA A–Poison Gas	RA Radioactive	CO Corrosive		
FG Flammable Gas	PB B–Poison Liquid/Solid	OX Oxidizer	IN Irritating Agent		
NG Non flammable Gas	FL Flammable Liquid	OP Organic Peroxide			

TABLE 2 – How Stored

List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Box(s)
10. Bag(s)
11. Metal Containers (not drums)
12. In Machinery or Processing Equipment
13. Other (specify)

PART III OFFICE USE ONLY: 1 2 3 4

BUSINESS NAME _____ BUSINESS ADDRESS _____ PAGE ___ OF ___

Separate form required for each business address.
Xerox for additional forms.

1. Chemical Name (CN) Common or Trade Name (TN) If a mixture (MIX), list 3 major or most hazardous ingredients. Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN Eyrite Refill TN 11-01690 MIX Sodium hydroxide		UN1824	CO	1310732	Maint-enance Crib	20 gallons	[redacted]	Water treatment
CN Lustreless Steel TN MIX Xylol		UN1992	FL	None available	Flammable cabinet	1 gallon	[redacted]	Electrical
CN Sulfuric Acid TN MIX Sulfuric Acid		UN1830	CO	7664939	Maint-enance Crib	2 gallons	[redacted]	Plumbing Procedures
CN Industrial marking Ink TN Ink MIX Isopropyl Alcohol, Ethylene Glycol		UN1219	FL	67630 107211	Flammable cabinet	4 bottles	[redacted]	Work Environment

TABLE 1

Department Of Transportation Classifications

Use abbreviations only. See shipping papers for information

EA Explosive A	PY Pyrophoric or Spontaneously Combustible	CL Combustible Liquid	ET Etiologic Agent		
EB Explosive B		FS Flammable Solid Water Reactive	OR Other Regulated Material		
EC Explosive C	PA A–Poison Gas	RA Radioactive	CO Corrosive		
BA Blasting Agent	PB B–Poison Liquid/Solid	OX Oxidizer	IR Irritating Agent		
FG Flammable Gas	FL Flammable Liquid	OP Organic Peroxide			
NG Non Flammable Gas					

TABLE 2 – How Stored

List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (Including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Box(s)
10. Bag(s)
11. Metal Containers (not drums)
12. In Machinery or Processing Equipment
13. Other (specify)

PART III | OFFICE USE ONLY: 1 2 3 4 | PAGE ___ OF ___

BUSINESS NAME _____ BUSINESS ADDRESS _____

Separate form required for each business address.
Xerox for additional forms.

1. Chemical Name (CN) / Common or Trade Name (TN) / If a mixture (MIX), list 3 major or most hazardous ingredients. / Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN LT2 Lacquer Thinner TN MIX Acetone, Lactol Spiritik, MEK, Monoether		NA 1263	FL	67641 8030306 78933 1111762	Flammable cabinet	5 gallons	[redacted]	Electrical Assembly
CN Flux Thinner TN Alcohol, Terpene Solvent MIX		UN1987	FL	67630 80568	Flammable cabinet	10 gallons	[redacted]	Electrical Assembly
CN Epoxy Reducer TN MIX MEK, Butanol, Cellosolve Acetate, Tolyene		UN1325	FL	78933 71363 111159 108883	6 Flammable cabinet	~~2 drums~~ 110 gals	~~Drum, 6750~~ [redacted]	Electrical Assembly
CN Petroleum Ether TN MIX Petroleum Ether		UN1271	FL	8032324	6 Flammable cabinet	~~2 drums~~ 110 gals	[redacted]	Electrical Assembly

TABLE 1
Department Of Transportation Classifications
Use abbreviations only. See shipping papers for information

EA Explosive A	PY Pyrocharic or Spontaneously Combustible	CL Combustible Liquid	ET Etiologic Agent		
EB Explosive B		FS Flammable Solid Water Reactive	OR Other Regulated Material		
EC Explosive C					
BA Blasting Agent	PA A—Poison Gas	RA Radioactive	CO Corrosive		
FG Flammable Gas	PB B—Poison Liquid/Solid	OX Oxidizer	IR Irritating Agent		
NG Non flammable Gas	FL Flammable Liquid	OP Organic Peroxide			

TABLE 2 — How Stored
List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (Including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Box(s)
10. Bag(s)
11. Metal Container (not drums)
12. In Machinery or Processing Equipment
13. Other (specify)

PART III | OF. E USE ONLY: 1 _____ 2 _____ 3 _____ 4 _____ | PAGE ___ OF ___

BUSINESS NAME _____ BUSINESS ADDRESS _____

Separate form required for each business address.
Xerox for additional forms.

1. Chemical Name (CN) Common or Trade Name (TN) If a mixture (MIX), list 3 major or most hazardous ingredients. Consult Material Safety Data Sheet.	2. IF TRADE SECRET PLACE (X)	3. DOT, UN or NA # See Shipping Papers	4. DOT HAZARD CLASS Use Table # 1 Below	5. CAS # CHEMICAL ABSTRACTS SERVICE #	6. HOW STORED Use Table # 2 Below	7. AMOUNT Maximum amount on site at any one time	8. LOCATION Stored or used (describe)	9. HOW USED (describe)
CN 1, 1, 1, - Trichloroethane TN MIX		UPM - A 1831	~~ORM~~ CL	71556	6 Drums	110 Gallons	[redacted]	Waste
CN Alcohol TN MIX		UN1219	FL	67630	6 Drums	110 Gallons	[redacted]	Waste
CN Thinner TN MIX Butel Acetate, Hexyl Acetate, MEK		UN1592	FL	123864 88230397 78933	6 Drum	5.5 Gallon	[redacted]	Waste
CN Naptha TN MIX		UN1255	FL	None Listed	Drum 6	55 Gallons	[redacted]	Orgn. 676 Electrical Assembly

TABLE 1
Department Of Transportation Classifications
Use abbreviations only. See shipping papers for information

EA Explosive A	PY Pyrophoric or Spontaneously Combustible	CL Combustible Liquid	ET Etiologic Agent		
EB Explosive B		FS Flammable Solid Water Reactive	OR Other Regulated Material		
EC Explosive C					
BA Blasting Agent	PA A—Poison Gas	RA Radioactive	CO Corrosive		
FG Flammable Gas	PB B—Poison Liquid/Solid	OX Oxidizer	IR Irritating Agent		
NG Non flammable Gas	FL Flammable Liquid	OP Organic Peroxide			

TABLE 2 — How Stored
List all that apply

1. Underground Tank
2. Aboveground Ground Tank
3. Fixed Pressurized Cylinders
4. Movable Pressurized Cylinders
5. Insulated Tank (including Cryogenics)
6. Drum(s) or Barrel(s)
7. Carboy(s)
8. Glass Container(s)
9. Bags(s)
10. Bag(s)
11. Metal Containers (not drums)
12. In Machinery or Processing Equipment
13. Other (specify)

FIRE-243

Reference:
FFD, 1990

For Administering Agency Use
Facility ID #:

FULLERTON FIRE DEPARTMENT
CHEMICAL DESCRIPTION FORM

Reporting Period 1/1 to 12/31 1990

☐ Trade Secret page ☒ Non-trade Secret page ☐ Acutely Hazardous / Radioactive / Carcinogen page

CHEMICAL #1

Common Name: Isopropyl Alcohol	CAS #:
Chemical Name: Propanol	DOT #: 1219
PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☒ Mixture: ☐ Waste: ☐ Radioactive: ☐ (If radioactive _____ curies)	If Waste, enter annual amount generated:

WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)

PHYSICAL & HEALTH HAZARD CATEGORIES:
PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐
HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐

AMOUNT & TIME AT FACILITY:
UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)

Maximum Daily Amount:	55
Average Daily Amount:	55
# Days per year chemical is on-site:	365
Largest container on-site (volume):	55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9

C	P	T	Location on site
D	1	4	Northeast Building Exterior: Chemical Storage Area

ENTERED

CHEMICAL #2

Common Name: Naptha	CAS #:
Chemical Name: Naptha	DOT #: 1255
PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☒ Mixture: ☐ Waste: ☐ Radioactive: ☐ (If radioactive _____ curies)	If Waste, enter annual amount generated:

WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)

PHYSICAL & HEALTH HAZARD CATEGORIES:
PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐
HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐

AMOUNT & TIME AT FACILITY:
UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)

Maximum Daily Amount:	55
Average Daily Amount:	55
# Days per year chemical is on-site:	365
Largest container on-site (volume):	55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9

C	P	T	Location on site
D	1	4	Northeast building exterior: Chemical storage area

ENTERED

For Administering Agency Use
Facility ID #:

FULLERTON FIRE DEPARTMENT
CHEMICAL DESCRIPTION FORM

Reporting Period
1/1 to 12/31 1990

☐ Trade Secret page ☒ Non trade Secret page ☐ Acutely Hazardous / Radioactive / Carcinogen page

CHEMICAL #3

Common Name: Leeder Ardrox Cleaner 161W
CAS #:
Chemical Name: Methlyene Chloride/Phenol Mixture
DOT #: 1593

PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☐ Mixture: ☒ Waste: ☐
Radioactive: ☐ (If radioactive _____ curies)
If Waste, enter annual amount generated:

WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)

PHYSICAL & HEALTH HAZARD CATEGORIES:
PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐
HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐

AMOUNT & TIME AT FACILITY:
UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)

Maximum Daily Amount: 55
Average Daily Amount: 55
Days per year chemical is on-site: 365
Largest container on-site (volume): 55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9

C	P	T	Location on site
D	1	4	Northeast Building Exterior: Chemical Storage Area

ENTERED

CHEMICAL #4

Common Name: Epoxy Reducer
CAS #:
Chemical Name: Solvent Mixture
DOT #: UN 1325

PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☐ Mixture: ☒ Waste: ☐
Radioactive: ☐ (If radioactive _____ curies)
If Waste, enter annual amount generated:

WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)

PHYSICAL & HEALTH HAZARD CATEGORIES:
PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐
HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐

AMOUNT & TIME AT FACILITY:
UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)

Maximum Daily Amount: 55
Average Daily Amount: 55
Days per year chemical is on-site: 365
Largest container on-site (volume): 55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9

C	P	T	Location on site
D	1	4	Northeast Building Exterior: Chemical Storage Area

ENTERED

For Administering Agency Use
Facility ID #:

FULLERTON FIRE DEPARTMENT
CHEMICAL DESCRIPTION FORM

Reporting Period
1/1 to 12/31 1990

☐ Trade Secret page ☒ Non trade Secret page ☐ Acutely Hazardous / Radioactive / Carcinogen page

CHEMICAL #5

Common Name: Trichloroethane (Waste)	CAS #:
Chemical Name: 1,1,1 - Trichloroethane	DOT #: 2831
PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☐ Mixture: ☐ Waste: ☒ Radioactive: ☐ (if radioactive _____ curies)	If Waste, enter annual amount generated: 880 gallons
WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): 211 (3 digit code)	
PHYSICAL & HEALTH HAZARD CATEGORIES: PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐ HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐	
AMOUNT & TIME AT FACILITY: UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)	Maximum Daily Amount: 55 Average Daily Amount: 55 # Days per year chemical is on-site: 365 Largest container on-site (volume): 55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9	C	P	T	Location on site
	D	1	4	Northeast Building Exterior: Chemical Storage Area

CHEMICAL #6

Common Name: Trichloroethane	CAS #:
Chemical Name: 1,1,1 - Trichloroethane	DOT #: 2831
PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☒ Mixture: ☐ Waste: ☐ Radioactive: ☐ (if radioactive _____ curies)	If Waste, enter annual amount generated:
WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)	
PHYSICAL & HEALTH HAZARD CATEGORIES: PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐ HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐	
AMOUNT & TIME AT FACILITY: UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)	Maximum Daily Amount: 55 Average Daily Amount: 55 # Days per year chemical is on-site: 365 Largest container on-site (volume): 55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9	C	P	T	Location on site
	D	1	4	Northeast Building Exterior: Chemical Storage Area

For Administering Agency Use
Facility ID #:

FULLERTON FIRE DEPARTMENT
CHEMICAL DESCRIPTION FORM

Reporting Period
1/1 to 12/31 1990

☐ Trade Secret page ☒ Non trade Secret page ☐ Acutely Hazardous / Radioactive / Carcinogen page

CHEMICAL #7

Common Name: Freon TF	CAS #: 75-69-4
Chemical Name: TrichloroFluoro Ethane	DOT #:
PHYSICAL STATE: Solid: ☐ Liquid: ☒ Gas: ☐ Pure: ☒ Mixture: ☐ Waste: ☐ Radioactive: ☐ (If radioactive _____ curies)	If Waste, enter annual amount generated:
WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)	
PHYSICAL & HEALTH HAZARD CATEGORIES: PHYSICAL — Fire: ☒ Reactive: ☐ Sudden Pressure Release: ☐ HEALTH — Immediate Health (Acute): ☒ Delayed Health (Chronic): ☐	
AMOUNT & TIME AT FACILITY: UNITS OF MEASURE: gals ☒ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)	Maximum Daily Amount: 55 Average Daily Amount: 55 # Days per year chemical is on-site: 365 Largest container on-site (volume): 55

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9	C	P	T	Location on site
	D	1	4	Northeast Building Exterior: Chemical Storage Area

ENTERED

CHEMICAL #__

Common Name:	CAS #:
Chemical Name:	DOT #:
PHYSICAL STATE: Solid: ☐ Liquid: ☐ Gas: ☐ Pure: ☐ Mixture: ☐ Waste: ☐ Radioactive: ☐ (If radioactive _____ curies)	If Waste, enter annual amount generated:
WASTE CLASSIFICATION: Enter the State Waste Number (from DHS form 8022, Uniform Hazardous Waste Manifest): _____ (3 digit code)	
PHYSICAL & HEALTH HAZARD CATEGORIES: PHYSICAL — Fire: ☐ Reactive: ☐ Sudden Pressure Release: ☐ HEALTH — Immediate Health (Acute): ☐ Delayed Health (Chronic): ☐	
AMOUNT & TIME AT FACILITY: UNITS OF MEASURE: gals ☐ lbs ☐ cu ft ☐ grams ☐ kg ☐ ____ ☐ other (specify)	Maximum Daily Amount: Average Daily Amount: # Days per year chemical is on-site: Largest container on-site (volume):

STORAGE CODES & LOCATIONS: use the codes provided on pages 8 & 9	C	P	T	Location on site

Reference:
Fullerton, 2015

2015 Water Quality Report

City of Fullerton Water

Your 2015 Water Quality Report

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2014 water quality testing**, and has been prepared in compliance with regulations called for in the 1996 reauthorization of the Safe Drinking Water Act (SDWA). The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program.

USEPA and the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and SWRCB-DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB-DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The City of Fullerton vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In accordance with the SDWA, the City monitors over 100 compounds in your water supply. This report includes only the compounds actually detected in the water.

In some cases, the City goes beyond what is required by testing for unregulated contaminants that may have known health risks. For example, the Orange County Water District (OCWD), which manages our groundwater basin, monitors our groundwater for unregulated solvents and herbicides/pesticides. Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيداً.

Arabic

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

Chinese

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

Japanese

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이 것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

Korean

Este informe contiene información muy importante sobre su agua potable. Para mas información ó traducción, favor de contactar a Customer Service Representative. Telefono: (714) 738-6887.

Spanish

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

Vietnamese

Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact the City of Fullerton Water Quality Specialist at (714) 738-6896. The City Council meets on the first and third Tuesdays of the month at 6:30 pm.

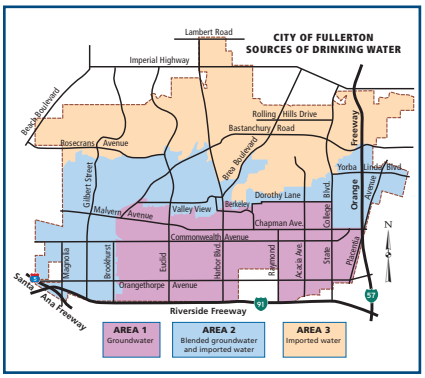
The meetings are held in the Council Chambers at City Hall, 303 W. Commonwealth Avenue, Fullerton. Please feel free to participate in these meetings.

For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline: (800) 426-4791.

The Quality of Your Water is Our Primary Concern

Sources of Supply

Your drinking water is a blend of mostly groundwater from the Orange County groundwater basin and also surface water imported by the Metropolitan Water District of Southern California (MWD). MWD's imported water sources are a blend of State Water Project water from northern California and water from the Colorado River Aqueduct. Your groundwater comes from a natural underground reservoir that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and stretching as far south as the El Toro 'Y'.



The Area Map in this report will help you determine what source of water you are most likely to receive. Area 1 receives primarily groundwater and Area 3 imported water. Area 2 receives a mixture of groundwater and imported water.

Fullerton's water system was built with maximum flexibility. We have 11 active wells, located in the southern portion of Fullerton and north Anaheim, and 6 imported water connections. This means that under emergency, drought or other unusual conditions, the source of water to any area may change. The Area Map reflects the source of water each area receives a majority of the time.

Basic Information About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and septic systems.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.

In order to ensure that tap water is safe to drink, USEPA and the SWRCB-DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB-DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWD joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from the SWRCB-DDW, as well as the U.S. Centers for Disease Control and Prevention, MWD adjusted the natural fluoride level in imported treated water from the Colorado River and State Project water to the optimal range for dental health of 0.7 to 1.3 parts per million.

Our local groundwater is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

There are many places to go for additional information about the fluoridation of drinking water:

U.S. Centers for Disease Control and Prevention:
www.cdc.gov/fluoridation/index.htm

State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

For more information about MWD's fluoridation, please contact Edgar G. Dymally at (213) 217-5709 or at edymally@mwdh2o.com.

Information the EPA Would Like You to Know

Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the U.S. Environmental Protection Agency (USEPA) to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by SWRCB-DDW. Full Stage 2 compliance began in 2012. Your drinking water complies with the Stage 1 and Stage 2 Disinfectants/Disinfection Byproducts Rule.

About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Fullerton is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, (800) 426-4791, or at: www.epa.gov/safewater/lead.

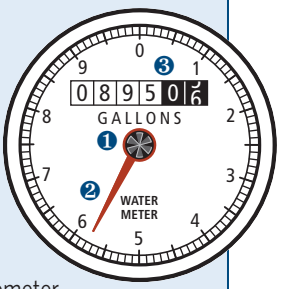
Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

How to Read Your Residential Water Meter

Your water meter is usually located between the sidewalk and curb under a cement cover. Remove the cover by inserting a screwdriver in the hole in the lid and then carefully lift the cover. The meter reads straight across, like the odometer on your car. Read only the white numbers (0895).

If you are trying to determine if you have a leak, turn off all the water in your home, both indoor and outdoor faucets, and then check the red or black triangular dial for any movement of the low-flow indicator. If there is movement, that indicates a leak between the meter and your plumbing system.



❶ **Low-Flow Indicator** — The low flow indicator will spin if any water is flowing through the meter.

❷ **Sweep Hand** — Each full revolution of the sweep hand indicates that one gallon of water has passed through the meter. The markings at the outer edge of the dial indicate tenths and hundredths of one gallon.

❸ **Meter Register** — The meter register is a lot like the odometer on your car. The numbers keep a running total of all the water that has passed through the meter. The register shown here indicates that 89,505 gallons of water has passed through this meter.

Issues in Water Quality the Could Affect Your Health

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water.

MWD tested their source water and treated surface water for *Cryptosporidium* in 2014 but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water Hotline at (800) 426-4791 between 10 a.m. and 4 p.m. Eastern Time (7 a.m. to 1 p.m. in California).

Nitrate Advisory

At times, nitrate in your tap water may have exceeded one-half the MCL, but it was never greater than the MCL. The following advisory is issued because in 2014 we recorded nitrate measurements in the drinking water supply which exceeded one-half the nitrate MCL.

Nitrate in drinking water at levels above 45 milligrams per liter (mg/L) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies.

If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Want Additional Information?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general, especially the drought and conservation. Some good sites — both local and national — to begin your own research are:

City of Fullerton Water
www.cityoffullerton.com/depts/admin_serv/water_service/default.asp

U.S. Environmental Protection Agency
www.epa.gov/safewater

State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml

Metropolitan Water District of Southern California
www.mwdh2o.com

Drought and Water Conservation Tips
www.BeWaterWise.com
www.SaveOurWater.com

Rebate Information, Water Saving Resources
www.OCWaterSmart.com

Source Water Assessments

Imported (MWDSC) Water Assessment

Every five years, MWDSC is required by SWRCB-DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

In 2012, MWDSC submitted to SWRCB-DDW its updated Watershed Sanitary Surveys for the Colorado River and State Water Project, which include suggestions for how to better protect these source waters. Both source waters are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (213) 217-6850.

Groundwater Assessment

An assessment of the drinking water sources for the City of Fullerton was completed in May 2002. The groundwater sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: Chemical/petroleum processing/storage, dry cleaners, gas stations, known contaminant plumes, metal plating/finishing/fabricating, and plastics/synthetics producers. The groundwater sources are considered most vulnerable to the following: Airports — maintenance/fueling areas, confirmed leaking underground storage tanks, and high density housing.

A copy of the complete assessment is available at: State Water Resources Control Board, Division of Drinking Water, 605 W. Santa Ana Blvd., Bldg 28, Rm 325, Santa Ana, CA 92701.

You may request a summary of the assessment by contacting: Water Quality Specialist, City of Fullerton, 303 W. Commonwealth Ave., Fullerton, California 92832-1775, Phone: (714) 738-6896.

2014 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2014						
Alpha Radiation (pCi/L)	15	(0)	ND	ND – 4	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	5	4 – 6	No	Decay of Man-made or Natural Deposits
Uranium (pCi/L)	20	0.43	3	2 – 3	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2014						
Aluminum (ppm)	1	0.6	0.17	0.08 – 0.31	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.11	0.11	No	Refinery Discharge, Erosion of Natural Deposits
Fluoride (ppm) treatment-related	Control Range 0.7 – 1.3 ppm Optimal Level 0.8 ppm		0.8	0.7 – 1	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2014						
Aluminum (ppb)	200*	600	170	80 – 310	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	90	87 – 92	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	980	960 – 1,000	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	230	220 – 240	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	630	600 – 650	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2014						
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	120	120 – 130	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.1	0.1	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	72	70 – 74	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	290	280 – 290	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	17	16 – 17	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	26	25 – 27	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.6	4.4 – 4.8	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	94	89 – 99	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.6	2.4 – 2.9	n/a	Various Natural and Man-made Sources

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **µmho/cm** = micromhos per centimeter; **ND** = not detected; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique *Contaminant is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Diemer Filtration Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Contaminant
1) Highest single turbidity measurement	0.3 NTU	0.06	No	Soil Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly. **NTU** = nephelometric turbidity units

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Chlorate (ppb)	800	n/a	53	38 – 68	2013
Chromium, Hexavalent (ppb)**	MCL = 10	0.02	0.07	0.03 – 0.12	2013
Chromium, Total (ppb)***	MCL = 50	MCLG = 100	<0.2	ND – 0.5	2014
Molybdenum, Total (ppb)	n/a	n/a	4.8	4.5 – 5.3	2014
Strontium, Total (ppb)	n/a	n/a	940	850 – 1,100	2014
Vanadium, Total (ppb)	50	n/a	2.8	2.3 – 3	2014

**Hexavalent chromium is regulated with an MCL of 10 ppb but was not detected, based on the detection limit for purposes of reporting of 1 ppb. Hexavalent chromium was included as part of the unregulated chemicals requiring monitoring.
***Total chromium is regulated with an MCL of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 10 ppb. Total chromium was included as part of the unregulated chemicals requiring monitoring.

Chart Legend

What are Water Quality Standards?

Drinking water standards established by USEPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/L)
- parts per billion (ppb) or micrograms per liter (µg/L)
- parts per trillion (ppt) or nanograms per liter (ng/L)

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

2014 City of Fullerton Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Uranium (pCi/L)	20	0.43	3.8	ND – 7.7	No	2014	Erosion of Natural Deposits
Organic Chemicals							
1,1-Dichloroethylene (ppb)	6	10	< 0.5	ND – 1.6	No	2014	Industrial Waste Discharge
Tetrachloroethylene, PCE (ppb)	5	0.06	0.57	ND – 3.6	No	2014	Industrial Waste Discharge
Trichloroethylene, TCE (ppb)	5	1.7	< 0.5	ND – 1	No	2014	Industrial Waste Discharge
Inorganic Chemicals							
Fluoride (ppm)	2	1	0.48	0.39 – 0.57	No	2013	Erosion of Natural Deposits
Hexavalent Chromium (ppb)	10	0.02	< 1	ND – 1.4	No	2014	Erosion of Natural Deposits
Nitrate (ppm as Nitrate)	45	45	14	8.7 – 25	No	2014	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	3.2	2 – 5.6	No	2014	Fertilizers, Septic Tanks
Selenium (ppb)	50	30	< 5	ND – 7.1	No	2013	Erosion of Natural Deposits
Secondary Standards*							
Chloride (ppm)	500*	n/a	77	52 – 92	No	2013	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	870	720 – 1,000	No	2013	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	140	110 – 160	No	2013	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	520	420 – 600	No	2013	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	<0.1	ND – 0.2	No	2013	Erosion of Natural Deposits
Unregulated Chemicals							
Alkalinity, total as $CaCO_3$ (ppm)	Not Regulated	n/a	170	130 – 210	n/a	2013	Erosion of Natural Deposits
Bicarbonate (ppm as HCO_3)	Not Regulated	n/a	210	160 – 260	n/a	2013	Erosion of Natural Deposits
Boron (ppm)	NL = 1	n/a	0.18	ND – 0.23	n/a	2013	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	80	58 – 100	n/a	2013	Erosion of Natural Deposits
Hardness, total (grains per gallon)	Not Regulated	n/a	16	11 – 19	n/a	2013	Erosion of Natural Deposits
Hardness, total as $CaCO_3$ (ppm)	Not Regulated	n/a	270	190 – 320	n/a	2013	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	16	12 – 26	n/a	2013	Erosion of Natural Deposits
pH (pH unit)	Not Regulated	n/a	7.9	7.8 – 7.9	n/a	2013	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	3.9	2.7 – 4.5	n/a	2013	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	69	45 – 78	n/a	2013	Erosion of Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable; **NL** = Notification Level; **<** = average is less than the detection limit for reporting purposes;
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **µmho/cm** = micromho per centimeter *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
1,4-Dioxane (ppb)	1	n/a	0.23	ND – 0.42	2014
Chlorate (ppb)	800	n/a	64	ND – 130	2014
Chromium, Hexavalent (ppb)	MCL = 10	0.02	0.58	0.23 – 1.4	2014
Chromium, Total (ppb)**	MCL = 50	MCLG = 100	0.36	ND – 1.1	2014
Molybdenum, Total (ppb)	n/a	n/a	6.3	2.9 – 20	2014
Perfluoro octane sulfonic acid (ppb)	n/a	n/a	< 0.04	ND – 0.04	2014
Strontium, Total (ppb)	n/a	n/a	650	390 – 860	2014
Vanadium (ppb)	50	n/a	4.2	2.6 – 6.7	2014

**Total chromium is regulated with an MCL of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 10 ppb. Total chromium was included as part of the unregulated chemicals requiring monitoring.

2014 City of Fullerton Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	38	8.8 – 40	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	18	1.6 – 19	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.3	1.1 – 1.4	No	Disinfectant Added for Treatment
Fluoride (ppm)	2	0.7	0.5 – 1.1	No	Erosion of Natural Deposits
Aesthetic Quality					
pH (pH Units)	Not Regulated	7.9	5.1 – 8.5	No	Acidity, Hydrogen Ions
Turbidity (NTU)	5*	0.1	0.1 – 0.35	No	Erosion of Natural Deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids. Thirty locations are tested monthly for color, odor and turbidity. Color and odor were not detected in 2014.
MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **ND** = not detected; **NTU** = nephelometric turbidity unit; **<** = detected but average is less than the reporting limit *Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

Bacterial Quality	MCL	MCLG	Highest Monthly Positive Samples	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5%	0	0.6%	No	Naturally present in the environment

No more than 5% of the monthly samples may be positive for total coliform bacteria. The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/*E.coli*, constitutes an acute MCL violation.

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	0.2	<5	1 / 62	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.25	0 / 62	No	Corrosion of Household Plumbing

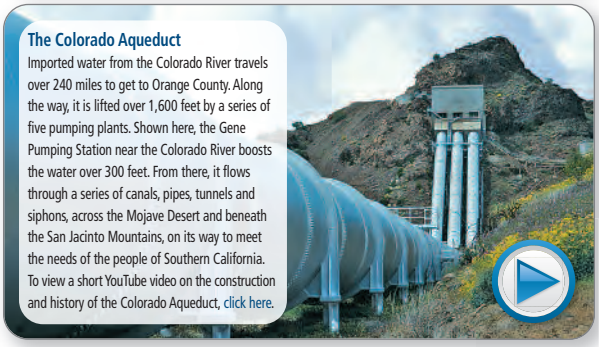
Every three years, residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2012. Copper was found in 62 homes; none exceeded the regulatory action level (AL). Lead was found in 4 homes; one exceeded the regulatory AL.
The regulatory action level is the concentration which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow. The City of Fullerton complies with the lead and copper ALs.

Unregulated Chemicals Requiring Monitoring in the Distribution System

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Chlorate (ppb)	800	n/a	78	40 – 110	2014
Chromium, Hexavalent (ppb)	MCL = 10	0.02	0.4	0.04 – 1.2	2014
Chromium, Total (ppb)**	MCL = 50	MCLG = 100	0.24	ND – 0.9	2014
Molybdenum, Total (ppb)	n/a	n/a	4.1	3.2 – 4.8	2014
Strontium, Total (ppb)	n/a	n/a	760	520 – 970	2014
Vanadium, Total (ppb)	50	n/a	3.4	2.7 – 4.4	2014

**Total chromium is regulated with an MCL of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 10 ppb. Total chromium was included as part of the unregulated chemicals requiring monitoring.

The California State Water Project
The State Water Project, one of the largest water systems in the world, collects water from rivers in Northern California and transports it, through a network of canals, pipelines and tunnels, over many hundreds of miles to Southern California, where it's distributed throughout the region. Along the way, it's lifted almost 3,800 feet, with the highest single lift of 1,926 feet over the Tehachapi Mountains, which separate the San Joaquin Valley from Southern California. To view a short YouTube video that shows the length and complexity of the State Water Project, click here.



The Colorado Aqueduct
Imported water from the Colorado River travels over 240 miles to get to Orange County. Along the way, it is lifted over 1,600 feet by a series of five pumping plants. Shown here, the Gene Pumping Station near the Colorado River boosts the water over 300 feet. From there, it flows through a series of canals, pipes, tunnels and siphons, across the Mojave Desert and beneath the San Jacinto Mountains, on its way to meet the needs of the people of Southern California. To view a short YouTube video on the construction and history of the Colorado Aqueduct, click here.

The Need to Conserve Has Never Been Greater

As California enters its fourth year of drought, water conservation has become vitally important for all of us. The State Water Resources Control Board voted to approve water reduction mandates that require Fullerton to reduce water use, based on 2013 data, by 28%. There are many areas in and around our homes where we can save water, particularly outdoors, where our gardens and lawns receive almost 60% of the water we use. In order to reach the 28% reduction goal, we encourage that residents reduce all outdoor watering by half. To learn more about the drought or to find useful tips for how to conserve water, visit:

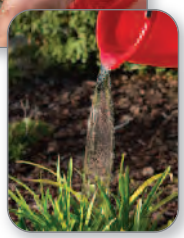
www.fullertonwaterconservation.com • www.SaveOurWater.com
or www.BeWaterWise.com

To learn about programs and devices that can help save water, along with information on rebates for these water saving resources, visit:

www.SoCalWaterSmart.com

To view a short YouTube video on multiple ways to conserve water, click here.

Conservation Tips for Inside Your Home…



Collect water used to wash fruits and vegetables:
Use it to water your houseplants

Don't run water to thaw food:
Defrost in the refrigerator

Install aerators on the kitchen faucet:
Reduce flow to less than 1 gallon per minute

Turn off the water while you brush your teeth:
Saves up to 2.5 gallons per minute

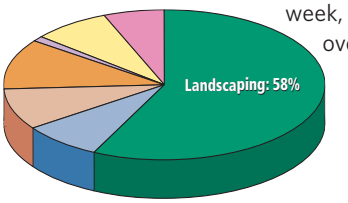
Spend only 5 minutes in the shower:
Saves up to 8 gallons each time

Install low-flow shower heads:
Saves 2.5 gallons per shower

Plug the sink instead of running water to rinse your razor:
Saves up to 300 gallons a month

How Residential Water is Used in Orange County

Outdoor watering of lawns and gardens makes up approximately 60% of home water use. By cutting your outdoor watering by 1 or 2 days a week, you can dramatically reduce your overall water use.



- Showers & Baths: 8%
- Clothes Washers: 9%
- Toilets: 11%
- Dishwashers: 1%
- Leaks: 7%
- Faucets: 6%

Data is representative of average consumption; your water usage may vary.

…and More Tips for Outside Your Home

Check your sprinkler system for leaks, overspray and broken sprinkler heads and repair promptly:
Saves up to 500 gallons per month

Use a broom instead of a hose:
Saves up to 150 gallons each time

Water your plants in the early morning or evening:
Saves up to 25 gallons each time

Remove the turf from your yard:
Saves about 42 gallons per square foot/per year

Rain barrels: ***Saves about 600 gallons per year***

Rotating nozzles for pop-up sprays:
Uses 20% less water than conventional sprinkler heads

Additional water saving steps and devices are also available, and some of these are eligible for substantial rebates. Consider replacing your lawn with drought tolerant plants, synthetic turf, or permeable hardscape. Add rotating sprinkler nozzles,or a drip line to enhance your automated irrigation system. And mulch. Hundreds of gallons a year can be saved by using organic mulch.

For complete rebate information for these water saving resources, visit: **www.SoCalWaterSmart.com**.

Talk to your family and friends about saving water.
If everyone does a little, we all benefit a lot.

City of Fullerton Water Helpline: (714) 738-6744, or visit www.fullertonwaterconservation.com

Reference:
GeoTracker, 2015

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

PROJECT SEARCH RESULTS

SEARCH CRITERIA: 1401 ORANGETHORPE, FULLERTON, LUFT, SLIC, LANDFILL, DOD, DODPRIV, DODUST, WDR, IRRIGATED_LANDS, INJECTION, UST

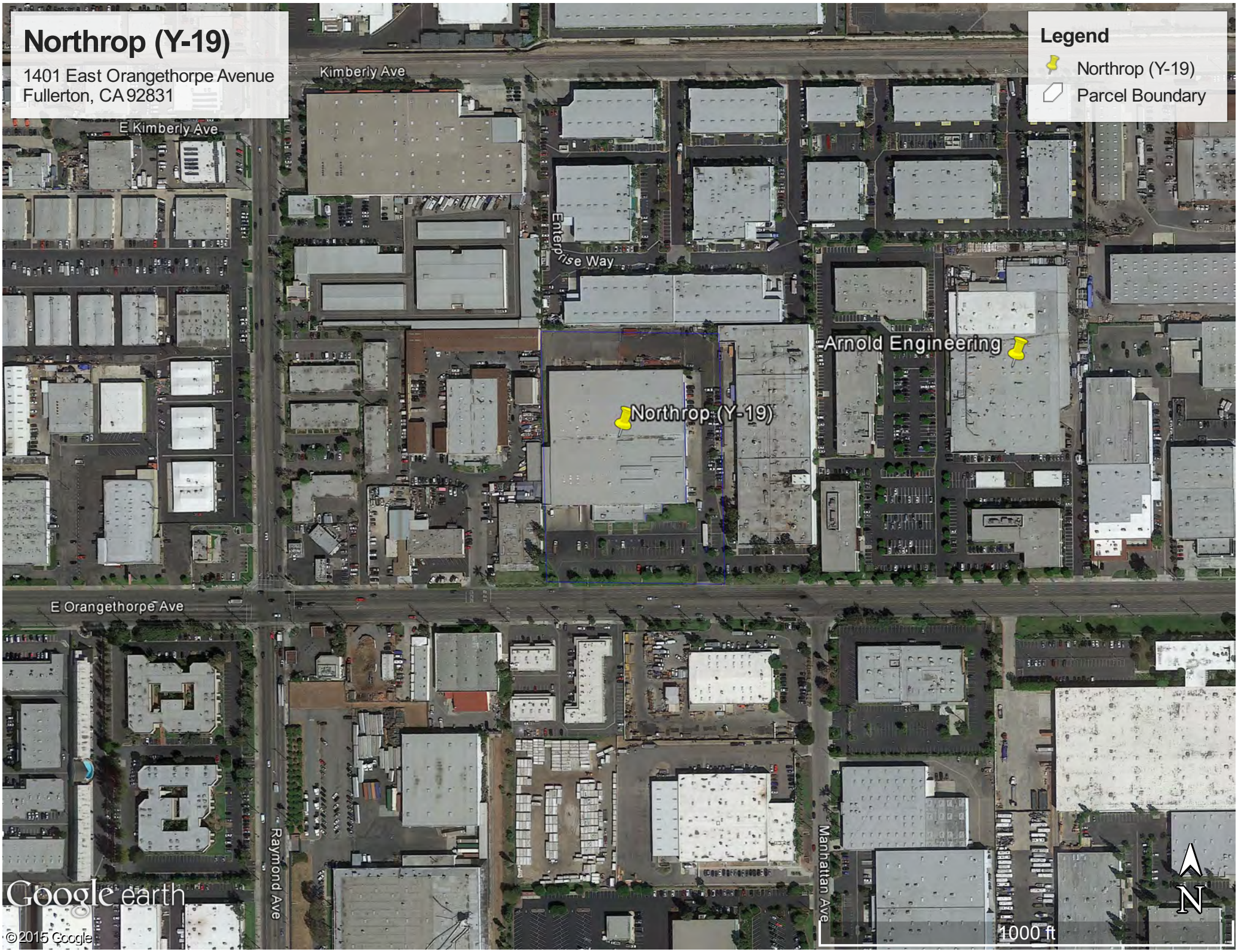
0 RECORDS FOUND EXPORT TO EXCEL PAGE 1 OF 1

NO PROJECTS FOUND WITH THOSE SEARCH PARAMETERS.

Reference:
GeoTracker, 2016

Note: This document is confidential and is included in the confidential information packet.

Reference:
Google, 2015


Northrop (Y-19)
1401 East Orangethorpe Avenue
Fullerton, CA 92831
Legend
Northrop (Y-19)
Parcel Boundary
Kimberly Ave
E Kimberly Ave
Enterprise Way
Arnold Engineering
Northrop (Y-19)
E Orangethorpe Ave
Raymond Ave
Manhattan Ave
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1000 ft
Google earth
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Reference:
GSWC, 2015

Golden State
Water Company
A Subsidiary of American States Water Company

2015

Placentia Water System

Consumer Confidence Report
on Water Quality for 2014

Providing Quality Drinking Water in California Since 1929

Golden State Water Company is pleased to present our Annual Water Quality Report for 2014.

Our team of more than 550 water professionals is committed to ensuring you have reliable, high-quality water service available whenever you need it. Bringing you clean drinking water is serious business.

Golden State Water strictly adheres to federal and state drinking water quality guidelines required by the United States Environmental Protection Agency (USEPA), the State Water Resources Control Board's Division of Drinking Water (DDW) and the California Public Utilities Commission (CPUC). To ensure the quality of your drinking water, we routinely sample to monitor water quality, testing for more than 230 regulated and unregulated elements in our water distribution systems. In 2014 alone, we invested more than half a million dollars on laboratory testing to meet regulatory standards.

If drinking water standards are ever compromised, we are required to take immediate action, notify customers in timely fashion and restore normal service.

We pride ourselves on getting the job done right. Our team of experts is equipped to provide customers with the most efficient and effective service possible. Golden State Water strives to constantly improve our water production and delivery systems and adequately maintain wells, pumps and pipelines. Our philosophy is to invest in comprehensive preventive maintenance programs so our water infrastructure reliably provides you with high-quality drinking water, 24 hours a day, seven days a week.

Our customers are our top priority and we strive to provide the latest news and updates about their water service. Golden State Water's Customer Service Center representatives are available around-the-clock to answer your water quality questions and address your concerns. We encourage customers to visit www.gswater.com to learn more about your customer service area, water quality, conservation rebates and water-use efficiency tips.

Given current drought conditions and the forecast for continued dry conditions, water remains a critical issue and Californians must stay diligent with their efforts to reduce water usage at their homes and businesses. We encourage customers to visit gswater.com/drought to learn more about the state's water-use restrictions and conservation goals, as well as resources to help improve your water-use efficiency.

On behalf of the men and women at Golden State Water who serve you, thank you for providing us the opportunity to be your water provider. Please call our 24-hour Customer Service Center with any questions or feedback about this report at 1-800-999-4033.

Sincerely,

Robert Sprowls
President and Chief Executive Officer
Golden State Water Company

Ken Vecchiarelli
General Manager, Orange County District
Golden State Water Company

About the Company

Golden State Water Company, a subsidiary of American States Water Company (AWR), provides water service to approximately one million Californians located within 75 communities throughout 10 counties in Northern, Coastal and Southern California. The Company also distributes electricity to more than 24,000 customers in the Big Bear recreational area of California. AWR's contracted services subsidiary, American States Utility Services, Inc., provides operations, maintenance and construction management services for water and wastewater systems located on military bases throughout the country.

Drought in California

California recently entered its fourth consecutive dry year, and Golden State Water is asking all customers to use water responsibly. We encourage customers to visit gswater.com/drought to learn more about the state's water-use restrictions and reduction goals, as well as resources to help improve your water-use efficiency.

Thanks to years of proactive planning and continued long-term investments in water infrastructure, Golden State Water (working collaboratively with regional wholesale water suppliers) has maintained a stable water supply for our customers during this unprecedented drought.

Golden State Water Company will continue working closely with the communities we serve to ensure they are making informed water-use decisions to meet all approved reduction goals.

Where Does My Water Come From?

Water delivered to customers in the Placentia System is a blend of groundwater pumped from the Orange County Groundwater Basin, and imported water from the Colorado River Aqueduct and the State Water Project (imported and distributed by the Metropolitan Water District of Southern California). The Orange County Groundwater Basin stretches 350 square miles from the Orange County line at Seal Beach and Long Beach, along the coast down to the El Toro "Y" and east to Yorba Linda.

Glossary of Terms

Maximum Contaminant Level (MCL)
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the public health goals and maximum contaminant level goals as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

California Notification Level (NL)
Non-regulatory, health-based advisory levels established by the Division of Drinking Water (DDW) for contaminants in drinking water for which an MCL has not been established.

Maximum Contaminant Level Goal (MCLG)
The level of contaminant in drinking water below which there is no known or expected risk to health. Maximum contaminant level goals are set by the United States Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level (MRDL)
The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS)
MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Public Health Goal (PHG)
The level of a contaminant in drinking water below which there is no known or expected risk to health. Public health goals are set by the California Environmental Protection Agency (CalEPA).

Regulatory Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Cross Connection Control Program

Golden State Water Company's Cross Connection Control Program provides a level of certainty that the water in the company's distribution system is protected from possible backflow of contaminated water from commercial or industrial customers' premises. For additional information, visit http://www.gswater.com/protecting-our-drinking-water/.

If You Have Questions – Contact Us

For information about your water quality or to find out about upcoming opportunities to participate in public meetings, please contact our 24-hour Customer Service Center at 1-800-999-4033. Visit us online at www.gswater.com or email us at customerservice@gswater.com.

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien.

For People with Sensitive Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those individuals with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, some elderly populations, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers.

The USEPA and Centers for Disease Control issue guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants. To obtain a copy of these guidelines, please call the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Connect with us to learn more!

Visit **www.gswater.com** to learn how to:

- Access the latest Water Quality Report for your area
- Get the latest updates and news regarding the drought and state/local restrictions
- Learn more about water-use efficiency, including programs and rebates in your area
- Understand your water bill and learn about payment options
- Obtain information about programs for low-income customers (CARW)
- Sign up to receive email updates about your water service.

For additional information, please contact our 24-hour Customer Service Center at **1-800-999-4033** or email us at customerservice@gswater.com.

Measurements

Water is sampled and tested consistently throughout the year to ensure the best possible quality.

Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L)
- Parts per billion (ppb) or micrograms per liter (µg/L)
- Parts per trillion (ppt) or nanograms per liter (ng/L)
- Grains per gallon (grains/gal) – A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.
- MicroSiemens per centimeter (µS/cm) – A measurement of a solution's ability to conduct electricity
- Nephelometric Turbidity Units (NTU) – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- PicoCuries per liter (pCi/L) – A measurement of radioactivity in water.

If this is difficult to imagine, think about these comparisons:

Parts per million:	**Parts per billion:**	**Parts per trillion:**
1 second in 12 days	1 second in 32 years	1 second in 32,000 years
1 inch in 16 miles	1 inch in 16,000 miles	1 inch in 16 million miles
1 drop in 14 gallons	1 drop in 14,000 gallons	10 drops in enough water to fill the Rose Bowl

YOUR WATER MEETS ALL CURRENT FEDERAL AND STATE REQUIREMENTS

Placentia Water System – Source Water Quality

Primary Standards - Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Turbidity						
Highest single measurement of the treated surface water (NTU)	TT = 1.0	n/a	n/a	0.06	2014	Soil runoff
Lowest percent of all monthly readings less than 0.3 NTU (%)	TT = 95	n/a	n/a	100%	2014	Soil runoff
Inorganic Constituents						
Aluminum (mg/L)	1	0.6	ND - 0.31	ND	2014	Erosion of natural deposits; residue from some surface water treatment processes
Barium (mg/L)	1	2	ND - 0.112	ND	2014	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (mg/L)	2.0	1	0.27 - 1.3	0.5	2014	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium (µg/L)	10	0.02	ND - 1.6	ND	2014	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as NO3] (mg/L)	45	45	ND - 33.4	9.3	2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (µg/L)	50	30	ND - 7.7	ND	2014	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Radioactive Constituents						
Gross Alpha Activity (pCi/L)	15(a)	(0)	ND - 7.72	ND	2014	Erosion of natural deposits
Gross Beta Activity (pCi/L)	50(b)	(0)	ND - 6	ND	2014	Decay of natural and manmade deposits
Uranium (pCi/L)	20	0.43	ND - 6.58	3	2014	Erosion of natural deposits
Secondary Standards - Aesthetic (units)	**Secondary MCL**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Aluminum (µg/L)	200	n/a	ND - 310	ND	2014	Erosion of natural deposits; residue from some surface water treatment processes
Color (units)	15	n/a	ND - 25 (c)	2	2014	Naturally-occurring organic materials
Chloride (mg/L)	500	n/a	25.7 - 121	85	2014	Runoff/leaching from natural deposits; seawater influence
Odor---Threshold (units)	3	n/a	ND - 32 (c)	1	2014	Naturally-occurring organic materials
Specific Conductance (uS/cm)	1600	n/a	269 - 1300	880	2014	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	22.8 - 241	152	2014	Runoff/leaching from natural deposits; industrial wastes
Turbidity (units)	5	n/a	ND - 5.4 (c)	0.8	2014	Soil runoff
Total Dissolved Solids (mg/L)	1000	n/a	142 - 772	540	2014	Runoff/leaching from natural deposits
Other Parameters (units)	**Notification Level**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Alkalinity (mg/L)	n/a	n/a	49.8 - 237	161	2014	
Calcium (mg/L)	n/a	n/a	15 - 104	75	2014	
Hardness [as CaCO3] (mg/L)	n/a	n/a	56.2 - 383	280	2014	The sum of polyvalent cations present in the water, generally magnesium and calcium; the cations are usually naturally occurring
Hardness [as CaCO3] (grains/gal)	n/a	n/a	3.28 - 22.4	16	2014	
Magnesium (mg/L)	n/a	n/a	4.7 - 41.7	22	2014	
pH (pH units)	n/a	n/a	7.4 - 8.5	7.8	2014	
Potassium (mg/L)	n/a	n/a	2.5 - 4.8	3.8	2014	
Sodium (mg/L)	n/a	n/a	27.4 - 125	76	2014	Refers to the salt present in the water and is generally naturally occurring
Unregulated Drinking Water Constituents (units)	**Notification Level**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Vanadium (µg/L)	50	n/a	ND - 6.4	3.5	2013	
Molybdenum (µg/L)	n/a	n/a	4.3 - 49.9	16	2013	
Strontium (µg/L)	n/a	n/a	144 - 1020	860	2013	
Chlorate (µg/L)	800	n/a	39.7 - 691	114	2013	

Placentia Water System – Distribution Water Quality

Microbiological Constituents (units)	Primary MCL	PHG (MCLG)	Value	Most Recent Sampling Date	Typical Source of Constituent
Total Coliform Bacteria ≥40 Samples/ Month (Present / Absent)	More than 5% of monthly samples are positive	(0)	Highest percent of monthly samples positive was 2 %	2014	Naturally present in the environment

Disinfection Byproducts and Disinfectant Residuals (units)	Primary MCL (MRDL)	PHG (MRDLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Chlorine [as Cl2] (mg/L)	(4.0)	(4)	0.27 - 2.7	2.0	2014	Drinking water disinfectant added for treatment
HAA5 [Total of Five Haloacetic Acids] (µg/L)	60	n/a	ND - 20	16	2014	Byproduct of drinking water disinfection
TTHMs [Total of Four Trihalomethanes] (µg/L)	80	n/a	1.1 - 37	38	2014	Byproduct of drinking water disinfection

Inorganic Constituents (units)	Action Level	PHG (MCLG)	Sample Data	90th % Level	Most Recent Sampling Date	Typical Source of Constituent
Copper (mg/L)	1.3	0.3	None of the 30 samples collected exceeded the action level.	0.14	2013	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

(a) MCL is based on Gross Alpha minus Uranium.

(b) DDW considers 50 pCi/L to be the level of concern for beta particles.

(c) Data reported is prior to chlorination or other process and is not necessarily representative of water received by customers

ND = Not Detected CaCO3 = Calcium Carbonate

Source Water Assessment

GSWC conducted a source water assessment from 2002 through 2003 for each groundwater well serving the customers of its Placentia System.

Groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: confirmed leaking underground storage tanks, gas stations and sewer collection systems.

A copy of the assessment may be viewed at:
DDW Santa Ana District Office
605 W. Santa Ana Blvd., Room 325, Santa Ana, CA 92701
or
Golden State Water Company, Anaheim Office
1920 W. Corporate Way, Anaheim, CA 90801

You may request a summary of the assessment be sent to you by contacting:

DDW Santa Ana District Office at 1-714-558-4410

For more details, contact Mark Johnson, Water Quality Engineer, at 1-800-999-4033.

In December 2002, the Metropolitan Water District of Southern California (MWD) completed a source water assessment of its Colorado River and State Water Project supplies.

Colorado River supplies are considered to be most vulnerable to the following: increasing urbanization in the watershed, recreation, urban/ stormwater runoff, and wastewater.

State Water Project supplies are considered to be most vulnerable to the following: agriculture, recreation, urban/ stormwater runoff, wastewater, and wildlife.

A copy of the assessment can be obtained by contacting MWD by phone at 1-213-217-6850, option 3.

Laboratory Analyses

Through the years, we have taken thousands of water samples to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants in your drinking water. The table we provide shows only detected contaminants in the water.

Even though all the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of these substances were present in your water. Compliance (unless otherwise noted) is based on the average level of concentration below the MCL. The state allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. Some of our data, while representative, is more than a year old.

Lead — If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Golden State Water is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information about lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

Fluoridation — Fluoride has been added to the water that GSWC purchases from Metropolitan Water District of Southern California (MWD). Customers should see no difference in the taste, color or odor of their water as a result of fluoridation. Fluoridation does not change the way you normally use water for fish, pets, or cooking. Parents and guardians of children who receive fluoride supplements should consult the child's doctor or dentist. For information regarding fluoridation of your water, please contact MWD at 1-213-217-6850, option 2 or visit the Department of Drinking Water's fluoridation website at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

Chloramination — The water purchased by GSWC from Metropolitan Water District of Southern California (MWD) contains chloramine. Chloramine is added to the water for public health protection. Chloraminated water is safe for people and animals to drink, and for all other general uses. Three special user groups, including kidney dialysis patients, aquarium owners, and businesses or industries that use water in their treatment process, must remove chloramine from the water prior to use.

Hospitals or dialysis centers should be aware of chloramine in the water and should install proper chloramine removal equipment, such as dual carbon adsorption units. Aquarium owners can use readily available products to remove or neutralize chloramine. Businesses and industries that use water in any manufacturing process or for food or beverage preparation should contact their water treatment equipment supplier regarding specific equipment needs.

Should you have any questions or concerns regarding chloramine in your water, please contact MWD at 1-213-217-6850, option 3.

Aluminum — The secondary MCL for aluminum is set for aesthetic reasons and there is no health concern associated with the aluminum levels in this water system.

Nitrate — Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Odor, Color — The secondary MCLs for odor and color are set for aesthetic reasons and there are no health concerns associated with the odor or color levels in this water system.

Turbidity — Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of surface water filtration.

Unregulated Contaminant Monitoring — Monitoring for unregulated contaminants helps the USEPA and the DDW to determine where certain contaminants occur and whether the contaminants need to be regulated.

Risk to Tap and Bottled Water

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the layers in the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, which can pick up substances resulting from the presence of animal or human activity.

To be certain that tap water is safe to drink, the USEPA and the DDW prescribe regulations limiting the amount of contaminants in water provided by public water systems. United States Food and Drug Administration (USFDA) and DDW regulations also provide the same public health protection by establishing limits for contaminants in bottled water.

Contaminants in Drinking Water Sources May Include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities

Hydrant Flushing

Hydrant flushing is an essential maintenance procedure that all water providers must perform periodically ensure the delivery of water that meets state and federal drinking water standards.

Even in drought conditions, flushing is a necessary part of maintaining the water system and the quality of the water within it. Golden State Water has modified procedures, given the current drought in California, to minimize the amount of water released during flushing activities. Water used for flushing represents less than 1 percent of the total water usage in each of our water systems.

For more information about hydrant flushing, visit http://www.gswater.com/flushing-info/

Reference:
HWTS, 2014a

DTSCNet

Department of Toxic Substances Control

HWTS - RCRA Waste Code By Year Matrix

EPA ID: CAD980895098 **Name:** LAP CO
Entity: Generator

RCRA Code	*Description*	*Weight (in Tons)*					
		2008	**2009**	**2010**	**2011**	**2012**	**2013**
	Blank/Unknown	9.19800	4.19580	3.54480	4.04040	2.71320	1.86480
D001	Ignitable			0.10000			
D040	Trichloroethylene				0.12500		
F003	Non-halogenated solvents	0.60000	0.35000	0.33500	0.37500	0.40000	0.32450
	TOTALS	**9.79800**	**4.54580**	**3.97980**	**4.54040**	**3.11320**	**2.18930**

Reference:
HWTS, 2014b

DTSCNet

Department of Toxic Substances Control

HWTS - Calif. Waste Code By Year Matrix

EPA ID: CAD980895098 **Name:** LAP CO
Entity: Generator

Calif. Code	*Description*	*Weight (in Tons)*					
		2008	**2009**	**2010**	**2011**	**2012**	**2013**
	Blank/Unknown				0.20000		
134	AQ SOL (2 < PH < 12.5) W ORG RESIDUES < 10%	9.19800	4.19580	3.54480	4.04040	2.71320	1.86480
343	UNSPECIFIED ORGANIC LIQUID MIXTURE			0.10000	0.12500		
741	LIQ W/ HALOG ORGANIC COMP >= 1000 MG/L	0.60000	0.35000	0.33500	0.17500	0.40000	0.32450
	TOTALS	**9.79800**	**4.54580**	**3.97980**	**4.54040**	**3.11320**	**2.18930**

Reference:
ITC, 1990

Note: This document is confidential and is included in the confidential information packet.

Reference:
Northrop, 1985a

In Reply Refer To:
Y2858-85-4017/1249N/MEG:ec

NORTHROP

10 December 1985

DISTRIBUTION

R. Riemer 6100/Y20
J. Eifer 6110/Y2T
Y19 Lease File

REGISTERED MAIL--RETURN RECEIPT REQUESTED

Memorex Corporation
San Tomas at Central Expressway
M/S 1007
Santa Clara, CA 95057

Attention: Susan B. Caldwell

Subject: Northrop/Memorex Sublease
1401 East Orangethorpe Avenue
Fullerton, California

Gentlemen:

Please be advised that the City of Fullerton has determined that an underground "sump" located outside the subject facility, on the north side, is in violation of the Uniform Fire Code. The city has classified this "sump" as an underground tank and requires that "sump" closure be handled in accordance with the 1982 Uniform Fire Code, Section 79.113 (e). This section requires that the "sump" be filled with a cement slurry mixture.

Since the "sump" was not installed by Northrop and existed prior to the time Northrop took occupancy of this facility, it is Northrop's opinion that the cost of filling the sump should be bourne by Memorex.

Because failure to cure a fire code violation could result in an interruption of Northrop's business operations (i.e. plant shutdown), we are anxious to resolve this matter in an expeditious manner. We have, therefore, obtained an estimate of $900 from a licensed general contractor to correct the Uniform Fire Code violation.

In accordance with the terms of our Sublease Agreement, Northrop Corporation requests Sublessor and Master Landlord approval to fill the underground sump with a cement slurry mixture.

Please contact the undersigned if you required any additional information.

Very truly yours,

NORTHROP CORPORATION
Electro-Mechanical Division

M. E. Garrity

M. E. Garrity, Administrator
Contract Administration

c: Mc Lachlan Investment Company, Inc.
Captain Hooper, Fullerton Fire Department

Reference:
Northrop, 1985b

SP-4000-85-23

APRIL 1985

DRAFT
NORTHROP PRIVATE

NORTHROP CORPORATION
ENVIRONMENTAL AUDIT
ELECTRO-MECHANICAL DIVISION

25-29 January 1985

Conducted by:
Northrop Services Inc. – Environmental Sciences
Research Triangle Park, NC 27709

NORTHROP
Environmental
Sciences

SP-4120-85-23

DRAFT
NORTHROP PRIVATE

NORTHROP CORPORATION ENVIRONMENTAL AUDIT
ELECTRO-MECHANICAL DIVISION

25-29 January 1985

Conducted by:

Northrop Services, Inc. – Environmental Sciences
Research Triangle Park, NC 27709

NORTHROP SERVICES, INC.
ENVIRONMENTAL SCIENCES
P.O. Box 12313
Research Triangle Park, NC 27709

SUMMARY OF ENVIRONMENTAL AUDIT AT NORTHROP CORPORATION ELECTRO-MECHANICAL DIVISION

I. EXECUTIVE SUMMARY

A. Air. Through the audit inspections and discussions, it was concluded that a number of problems exist in the maintenance of the air pollution control equipment. The posting of permit conditions and training of equipment operators should help to alleviate these problems. The 1984 emissions inventory was found to be adequately supported by purchase and usage records, although records of paint usage could be improved. Efforts have been made to reduce the emission of volatile organic compounds (VOC) to stay within limits set by the South Coast Air Quality Management District (SCAQMD). The continuation of these efforts should provide sufficient reductions to allow for plant expansion; however, SCAQMD policies must be closely tracked in this regard.

B. Water. The audit of water pollution control at the Electro-Mechanical Division (EMD) facility indicated, in most cases, compliance with current Federal, state, and local regulations governing surface and ground waters. All regulated wastewater discharges to the County Sanitation District were properly permitted; no discharge to surface waters was apparent, although non-point surface runoff during precipitation events is likely.

C. Hazardous Waste and Toxic Substances. The principal findings in the area of hazardous waste and toxic substances have to do with administration, planning, and training under the Resource Conservation and Recovery Act (RCRA) regulations. These require continuing management attention and support to assure development and implementation of required plans and documents. Other findings and observations indicate a need for supervisory and management attention to general housekeeping practices and for an ongoing inspection program for potential hazardous-problem areas.

II. SCOPE OF AUDIT

The Northrop Corporation 1985 environmental audit was conducted by staff from Northrop Services, Inc. – Environmental Sciences (NSI-ES), Research Triangle Park, NC. The purpose of the audit was to perform a comprehensive technical assessment of Northrop manufacturing facilities with the following intentions:

- to determine/verify compliance with Federal, state, and local environmental regulations;
- to determine/verify compliance with established corporate policies and standards; and

- to provide assurance to management that operations are in compliance with existing environmental regulations.

The audit covered the areas of air pollution control, water pollution control, and hazardous waste management programs. Problems associated with substances such as beryllium, asbestos, and polychlorinated biphenyls were also reviewed. Topics concerning industrial hygiene were not within the scope of the audit.

The audit consisted of an introductory briefing, facility tours, interviews with environmental and operations personnel, reviews of records and correspondence, and a debriefing. NSI-ES auditors were given free access to the facilities and to Northrop personnel except for classified areas. Findings and observations made during the audit were reviewed with respect to current environmental regulations and are presented in Section III of this report. *Findings* are defined as conditions that could lead to regulatory action due to nonadherence to regulatory requirements. *Observations* are defined as conditions that may not immediately lead to regulatory action but present an environmental concern that should be either acted upon or addressed.

The audit was conducted over a relatively short period of time and is considered a "snapshot" of the environmental conditions of the facilities at the time of the review. Corrective actions may have been taken since the time the audit was performed; however, the intent here is to provide a basis for evaluating corrections and improvements in Northrop's environmental compliance status.

The audit was conducted in as thorough a manner as possible. Although some of the points and issues raised may appear minor, these minor concerns often indicate underlying technical or managerial problems that hinder full compliance to environmental regulations. An attempt was made to bring such situations into view and to provide suggestions and recommendations where possible.

III. AUDIT RESULTS

A. Air. The audit of the air pollution control activities of the Electro-Mechanical Division (EMD) was conducted by B. Michael Ray and James A. Jahnke. The air audit consisted of an interview with James Watson, Administrator – Environmental Engineering; an inspection of all equipment in Buildings Y-1, Y-2, Y-12, Y-15, and Y-19 permitted by the SCAQMD; and discussions with B. Perkins, D. Burlar, R. Gutierrez, D. Hester, R. Cress, M. Shultz, D. Davis, and L. Puls of EMD.

1. *Findings*

a. One exception to the specified operating conditions was found for the Devilbiss spray paint booth (Permit M40934) in EMD facility Y-19. The conditions specify: "a gauge must

be installed to indicate, in inches of water, the static pressure differential across the exhaust filters." No such gauge was found on the unit.

b. All permits required to be posted by SCAQMD Rule 206 were found to be posted. However, in a number of cases, the specified operating conditions were not clearly visible, a further requirement of the rule.

2. *Observations*

a. SCAQMD Rules 203 and 204 prohibit the operation of equipment contrary to the specified permit conditions. The units were not operating at the time of audit, so technically, they were not observed to be out of compliance. However, if they were to be operated in the presence of an SCAQMD inspector, a Notice of Violation (NOV) could be issued. The following obervations were made:

(1) The permitted Devilbiss spray paint booth (Permit M40933) located in EMD Y-19 was found to have (a) four filter panels missing, and (b) the exhaust pressure gauge painted over.

These conditions are contrary to permit condition 1 that requires all exhaust air to pass through filter media and permit condition 2 that requires a measure of the static pressure differential across the filters.

(2) The Devilbiss spray paint booth, located in EMD Y-19 (Permit M40365), was found to have posted operating instructions that contradict permit operating condition 3 that requires the use of only non-photochemically reactive solvents.

(3) The Beattie spray paint booths located in EMD Y-12 (Permit Units 68-136 and 68-137) were found with filters caked with dry paint. In operation, no air would be able to pass through the filter, and the purpose of the devices would be defeated.

(4) The Devilbiss spray paint booth located in EMD Y-12 (Permit Unit S01616) was found with air gaps in the filter panels, caused by improper filter installation. This again is in contradiction to the permit condition that requires all exhaust air to pass through the filtering media.

(5) SCAQMD spray paint booth Permits M39989, M40933, M40934, M40365, S01616, and S04003 give limitations to paint usage in terms of hourly and daily rates. No usage records were found at the permitted units. It was therefore not possible to determine if these limitations were being met.

(6) At one point during the audit, an operator was observed to be spraying outside of a spray booth, directly releasing particulate and gaseous pollutants into the air. Such a procedure circumvents the purpose of the control equipment and is contrary to Rules 203 and 204 of the SCAQMD.

b. Air Pollution Control Equipment Maintenance. In general, it was apparent that maintenance of plant air pollution control equipment (paint spray booths, anodic room scrubbers, etc.) could be improved. Maintenance records were not found for any of the equipment, nor did a program of regular preventative maintenance appear to be established. Operator awareness of permit conditions and proper operating procedures accordingly need to be improved.

c. Emission Inventory. The emission inventory was reviewed for accuracy and completeness. The annual usage reported in the 1984 inventory was verified for solvents, 1,1,1,-trichloroethane, diesel oil, natural gas, methy ethyl ketone, isopropyl alcohol, and kerosene. Paint, varnish, and enamel usage rates were not verified due to the difficulty in classifying the coatings listed in the purchase records. It was found that usage was estimated by adding items received during 1984 to stocks on hand at the beginning of 1984, and then subtracting stocks on hand at the end of 1984. This does not account for items stored in production or items discarded in production.

A more careful accounting of the status of materials in production could lead to a reduction in organic emissions reported in the inventory. In turn, this would result in a slight lowering of emission fees and provide extra margin for future plant expansion.

d. Emission Credits. Usage of organic solvents and materials is constrained by the necessity to obtain additional emission credits. Nonavailability of credits and/or emission offsets can limit future plant expansion. The audit team recognized that active programs are underway in EMD to address this problem. Current emission credits available for the following listed facilities are Y-1 – 75 lb/day; Y-12 – 41 lb/day; Y-15 – 70 lb/day; and Y-19 – 23 lb/day. The credits available to Y-19 may present a problem to further expansion at that facility. However, the method of assigning of credits by SCAQMD at this time is not clear. It is not certain if the listed credits will hold in the future or if they will be reduced by a redefinition of "facility."

Programs that address this problem are

(1) The application and use of electrostatic spray coating techniques in Y-1 and Y-12, resulting in a decrease in paint usage.

(2) Resolving rule applicability to Hawk loader/launcher coatings. A verbal agreement with SCAQMD has been obtained to allow Rule 1124 to apply to this operation instead of Rule 1107. Since the coatings used already meet the more stringent requirements of Rule 1107, SCAQMD is to determine if credits will be allowed for the reduction from the higher 1124 limits.

(3) An active program of testing and evaluation of alternative coatings is in progress. Waterborne coatings and powder coating technologies are currently being evaluated. Such programs generally require a two-year period of study. There was some question as to whether the SCAQMD would allow credits for switching from solvent-borne to waterborne coatings. If credits are disallowed, alternative solutions would need to be found.

(4) Although paint and solvent usage records are being maintained at the production level, the audit team recommends that daily usage logs be maintained for each permitted unit. This will allow for the preparation of an accurate emissions inventory and documentation of compliance with permit usage level requirements.

e. Emergency Episode Plan. The SCAQMD "Notice to Comply" regarding the update of the Emergency Episode Plan for stationary source curtailment has been resolved. The updated plan was submitted on 25 April 1984 and approved by SCAQMD on 10 May 1984.

f. A division policy pertaining to environmental control activities was not available to the audit team. Although Northrop Policy Directive No. 13 is referred to at the division level, a circulated division policy might more specifically address the concerns of EMD with regard to environmental compliance.

3. *Summary and Recommendations.* The major deficiencies observed by the audit team can be corrected by improving maintenance of the air pollution control equipment and by ensuring that production personnel are aware of operating procedures specified in SCAQMD permits. It is also recommended that production personnel maintain records of paint and solvent usage. More accurate determinations of actual use rates may improve data needed for emission inventories and for plant expansion programs.

C. Water. An environmental evaluation of the Electro-Mechanical Division's water control activities was conducted by B. Michael Ray and John R. Tuschall. The audit consisted of an inspection of EMD facilities, interviews with key personnel involved in water pollution control activities (Jim Watson and Dave Burlar), a property perimeter analysis for water shed runoffs, an assessment of wastewater

discharge sources (including the two pretreatment plants), and an examination of all correspondence and records concerning water pollution control.

1. *Findings*

a. Wastewater Flow to Orange County Sanitary District. In several areas in the EMD facility, clean water was observed being discharged to the sewer system, either directly or indirectly, after passage through the pretreatment plant. Such discharge of clean water violates Section 203 of the County Sanitation Regulations. In one case (Building Y-12), clean water overflowed freely from rinse tanks while the process was not in use. In Building Y-1, single-pass cooling water and other clean process water flowed to the pretreatment plant and ultimately to the county sewer system. These practices are costly – both in terms of inflated water-use bills and excessive consumption of treatment chemicals.

The recommendation is to recycle clean water and stop rinse-water flow in process lines during periods of non-use.

b. Oil and Fuel Storage. The total storage capacity of oil (including gasoline, waste oils, and other fuels) at EMD exceeds both 600 gal for above-ground tanks and 42,000 gal for underground tanks, and, thus, the storage tanks are regulated under 40 CFR 112 – Prevention of Oil Discharge to Surface Waters. This Federal regulation requires, among other items, a Spill Prevention Control and Countermeasure (SPCC) Plan, berms, tank contents clearly labeled on tanks, emergency control and clean-up equipment, and procedures. Two above-ground tanks that were pointed out as containing waste-cooling oil east of Building Y-1 were not labeled, not bermed, and no emergency equipment or procedures were available during the audit. None of the interviewed EMD staff was aware of an existing SPCC plan for any of the EMD storage tanks.

Pending State regulations (see Summary and Recommendations below) will likely prompt the removal of all underground tanks at EMD to preclude the extensive monitoring required for their continued use. Nonetheless, the above-ground tanks (~1500-gal capacity) currently used to store waste oil would still be regulated under 40 CFR 112 because their capacity exceeds the 600-gal limit for above-ground storage.

2. *Observations*

a. Pretreatment Plant. At the time of the audit, only the pretreatment plant at Building Y-1 was in operation. However, the following observations and suggestions also apply to the proposed pretreatment plant at Building Y-12.

(1) The quality of the maintenance and calibration program would be enhanced by formalizing operating procedures with written protocols and daily logbook entries. These procedures and records of performance would also serve as partial evidence of compliance in the event that Northrop is implicated in excursions of regulated parameters.

Further documentation of compliance would be obtained by installing a continuous recording pH meter at the discharge from the pretreatment plant(s).

(2) Installation of covers on open tanks in pretreatment systems would prevent reported disturbances in operation caused by windblown debris.

(3) The records of flow rate into the pretreatment plant show uneven daily flow and, hence, likely produce fluctuating treatment efficiency. Installation of a holding/equalizer tank would alleviate the variable inflow and treatment.

(4) The uncontrolled dispersion and release of process water or treatment chemicals from a spill or leak in the pretreatment plan would be minimized by increasing the height of the berm around the base of the pretreatment plant.

b. Sewage Discharge. Discharges to sewers from Building Y-12 are likely to contain pulses of regulated substances that could exceed permitted levels during some discharge periods. The observed discharges were floor rinses and overflow from process tanks in the Alodine process line.

The recommendation is to route the current waste stream to the proposed pretreatment plant to reduce the discharged concentrations of regulated substances.

3. *Summary and Recommendations*

a. Underground Storage Tanks. Legislation pending in the State legislature indicates a strong likelihood that most underground storage tanks at the Electro-Mechanical Division will be regulated. The current draft of the regulation requires extensive (and expensive) long-term monitoring of tanks and their subsurface environment to assess each tank's integrity. The apparent labor- and cost-intensive nature of monitoring, coupled with the age and composition of the current tanks, should provide the incentive to inactivate all underground storage tanks.

It is recommended that maximum consideration be given to storing materials in above-the-ground concrete bunkers only in the future.

b. Pretreatment Plant. Although the perimeter encompassing the pretreatment plant was bermed, the height of this containment wall did not appear adequate to prevent contamination of the immediate environment in the event one of the large holding and/or reduction tanks ruptures. It is recommended that the height of these berms be increased by 6-12 in.

D. Hazardous Waste and Toxic Substances. The hazardous waste audit of the Electro-Mechanical facilities was performed by Connie Turlington and John Maroney. The audit was based on a tour of the facility, examination of records, collection of policy documents and forms, and interviews with Jim Watson, Ruben Gutierrez, David Burlar, Bill Perkins, Bob Lambdin, and John Gilbert.

1. *Findings*

a. Training Program

(1) From the beginning of 1984 to the date of audit, the formal training program required by 40 CFR 265.16 (as applied to generators storing wastes on site by 40 CFR 262.34(a)(4)) was not in place. Existing training is performed through the Occupational Health and Safety and the Training Department. The seminars do not address hazardous waste as required by the RCRA regulations.

(2) Persons requiring training, including new personnel who must, by 40 CFR 265.16 (as applied to generators storing wastes on site by 40 CFR 262.34(a)(4)), obtain necessary training within six months of employment, are not identified. Personnel are not to work unsupervised until such training has occurred.

(3) To document compliance with the regulatory requirements that training be conducted by a qualified person and deal with specific subjects related to the facility and the task, training plans and records should include a curriculum, including course outlines down to at least lesson topics, and résumés or curricula vitae (CVs) of the instructor(s).

(4) A scheduling system should be used to ensure that initial training is received within the mandatory six months of employment or reassignment to hazardous waste handling duties, and that annual refresher training is administered.

Implementation of a new formal training plan will require careful monitoring to ensure that all personnel whose job descriptions call for handling of hazardous materials/wastes, or whose duties may bring them into contact with such materials, receive appropriate initial and/or recurring training before working unsupervised.

b. Process Storage Tank. The waste acid storage tank (above ground) behind Building Y-12 does not have an automatic shutoff as required by 40 CFR 265.192(d), as applied to generators storing wastes on site by 40 CFR 262.34(a)(1).

c. Contingency Plan and Emergency Procedures. The existing emergency procedures do not address the requirements of 40 CFR 265, Subparts C and D (§§ 265.30 -.37 and 265.50 -.56, as applied to generators storing wastes on site by 40 CFR 262.34(a)(4)). The regulations permit amendment of existing emergency plans to meet RCRA requirements.

d. Reports. No record could be found of the Biennial Report required by 40 CFR 262.41. Annual reports filed for tax purposes with California do not appear to meet the requirements of this section. Inquiries to the California Department of Health Services (DOHS) and EPA Region IX indicate that the agencies have not made clear how this responsibility is to be met for California generators (producers). More information concerning this requirement has recently been published at *Env. Rep. - Ref. File* (BNA) 161:907 (25 Jan 85).

2. *Observations*

a. Temporary Storage Areas. The audit team noted temporary storage facilities at Buildings Y-19 and Y-15. At Y-19, storage is inside the process plant. Only a small amount of waste is currently stored at this location, but growth in operations will present storage problems. At Y-15, storage is out of doors (one or two barrels), but the area is uncovered and has no berm.

b. Virgin Materials Storage Areas

(1) The existing main storage area presents problems of overcrowding, improper segregation of materials, poor aisle space, and stacking. Interviews indicate that this area is to be replaced.

(2) The team noted at the Page Court facility that oxidizers are being stacked on wooden pallets. While this is a non-operating facility, this practice still presents a hazard.

c. Dumping Ground. The earth-covered former railroad spur east and north of Y-4 was earlier used as a dumping ground for acids, and possibly other wastes. It should continue to be monitored, and plans should be made for remediation.

d. Overall Management Approach. Observation of the overall management system indicates a complex and extended organizational structure. As noted above, six people were interviewed and identified as persons involved in the management and disposal of

hazardous materials and wastes. These individuals were members of three different departments.

4. *Summary and Recommendations*

a. The principal findings in the hazardous waste area have to do with administration, planning, and training under RCRA. These require continuing management attention and support to assure development and implementation of required plans and documents.

b. Other findings and observations indicate a need for attention to housekeeping practices and ongoing inspection of potential hazardous problem areas.

Reference:
PRC, 1990

Note: This document is confidential and is included in the confidential information packet.

Reference:
RCRIS, 2015

EPA United States Environmental Protection Agency

Envirofacts

FRS Facility Detail Report

FRS

LAP CO

1401 E ORANGETHORPE AVE
FULLERTON, CA 92831
EPA Registry Id: 110006468955

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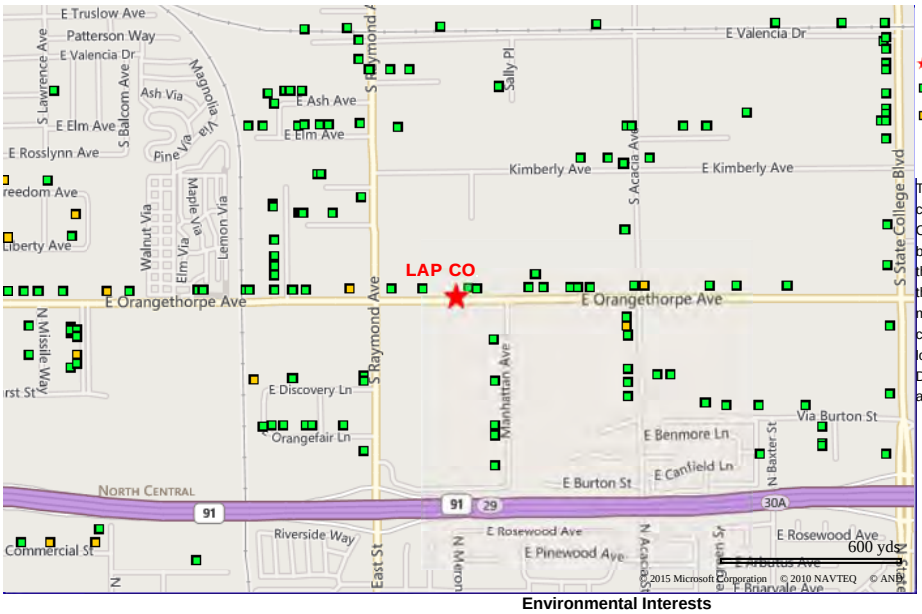

Legend

- Selected Facility
- EPA Facility of Interest
- State/Tribe Facility of Interest

The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Environmental Interests

Information System	System Facility Name	Information System Id/Report Link	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	LAP CO	CAD980895098	SQG (Y)	RCRAINFO	02/15/2008	

Additional EPA Reports: MyEnvironment | Enforcement and Compliance | Site Demographics | Facility Coordinates Viewer | Environmental Justice Map Viewer | Watershed Report

Standard Industrial Classification Codes (SIC)

No SIC Codes returned.

National Industry Classification System Codes (NAICS)

Data Source	NAICS Code	Description	Primar
RCRAINFO	33634	MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING	

Facility Codes and Flags

EPA Region:	09
Duns Number:	
Congressional District Number:	39
Legislative District Number:	4
HUC Code/Watershed:	18070106 / SAN GABRIEL
US Mexico Border Indicator:	NO
Federal Facility:	NO
Tribal Land:	NO

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
REGULATORY CONTACT	1401 E ORANGETHORPE AVE	FULLERTON	CA	92831	RCRAINFO
FACILITY MAILING ADDRESS	1401 E ORANGETHORPE AVE	FULLERTON	CA	92831	RCRAINFO

Alternative Names

Alternative Name	Source of Data
NORTHROP CORP	RCRAINFO

Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
REGULATORY CONTACT	STEVE LEVIN	714-773-1380	RCRAINFO	View

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
OWNER	TCLW FULLERTON		RCRAINFO	
OPERATOR	LAP CO		RCRAINFO	

Query executed on: MAY-27-2015

Reference:
RWQCB, 1992

Rec'd to file
Jan. 2002

SOIL GAS SURVEY

VICINITY OF

FORMER MOORE BUSINESS FORMS SITE

FULLERTON, CALIFORNIA

SEPTEMBER 1992

Conducted in 1991
by
Wm. Dennis Merklin

Water Resource Control Engineer
Groundwater Investigation Section

California Regional Water Quality Control Board
Santa Ana Region

EXHIBIT: 22
WITNESS: [illegible]
DATE: 5-27-08
LAURIE HELD BIEHL, CSR
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EXECUTIVE SUMMARY

In the initial stage of a site investigation at the former Moore Business Forms (MBF) facility in Fullerton, 500 parts per billion (ppb) of trichloroethene (TCE) was detected in a monitoring well that was installed at the site. A subsequent groundwater investigation detected similar TCE concentrations in this well and concentrations of over 50 ppb of TCE in other monitoring wells that were subsequently installed in other areas at the site. Continued sampling found TCE concentrations in the groundwater to range from 50 ppb to 200 ppb. Although volatile organic compounds (VOCs) were non-detectable in composite and discrete soil samples taken from soil borings during these two investigations, TCE and tetrachloroethene (PCE) were detected in the soil vapor at the site in two subsequent soil gas surveys.

In an effort to determine if the TCE found in the groundwater beneath the site was due to discharges from the former MBF facility or from adjacent off-site sources and to confirm the previous high soil gas levels at the former MBF site, a soil vapor survey using Petrex soil gas collection tubes was conducted by Board staff at the former MBF site (now California Shirt Sales) and at three sites which are adjacent to, and up-gradient of, the California Shirt Sales site.

A total of 17 soil gas collection tubes were installed at the four sites. Six tubes were installed at the Pacific Seacraft facility located south of the eastern half of the California Shirt Sales site. Three tubes were installed on the California Shirt Sales site. Four tubes were installed at the Johnson Controls Battery Division facility located east of the California Shirt Sales site, and four tubes were installed at the property of McLachlan Investments, which had been occupied by numerous tenants, and is currently occupied by Composite Container. The building at this site was recently Northrop Corporation's Y-19 Building, and is located southeast of the California Shirt Sales site.

The results of the soil gas survey showed that the highest TCE soil vapor flux was found in the southeast area of the former MBF site. The data also showed that the off-site locations closest to this area displayed a high TCE flux, although significantly lower than that found at the former MBF site. Similarly, the highest PCE soil vapor flux was found in the northeast area of the former MBF site and displayed a similar pattern as the TCE. The data supports the premise that TCE and PCE were previously discharged at the former MBF site. In addition, significantly high TCE and PCE vapor flux was found at a location on the McLachlan Investments Company property. It is recommended that Moore Business Forms conduct further soil investigations and groundwater monitoring, and that McLachlan Investments conduct a soil investigation in the area of high TCE and PCE soil gas.

BACKGROUND

The former MBF site is located at 800 South Raymond Avenue in Fullerton, California (Figure 1). MBF purchased the property and began operations in 1957. Prior to 1957, the property, and most properties in the surrounding area, were orange groves. The area surrounding MBF became industrialized at approximately the same time as the MBF site. MBF occupied this site until 1983, when it sold the property to Raymond Associates (a general partnership). The facility remained idle between 1983 and 1988, when it was obtained by First Interstate Bank by foreclosure from Occidental Land Research (the principal owner). During these proceedings, Lincoln Property Company became interested in purchasing the property and hired Ebasco Environmental to conduct two phases of site investigations, as part of the property purchase procedure. After these two investigations were completed, Lincoln Properties decided not to purchase the property. Later in 1988, the property was sold to Ralph Horowitz and remained idle for almost a year. In 1989, Mr. Horowitz sold the property to Karl Sator, owner of California Shirt Sales. The facility has since been used as a warehouse outlet of tee-shirts, for California Shirt Sales.

In September and October 1988, a Phase I Site Assessment was performed at the former MBF site. This assessment was performed as part of an environmental investigation for a property transfer. The assessment consisted of drilling and sampling 21 soil borings, drilling, installing and sampling one groundwater monitoring well and assessing any impact from the presence of five underground storage tanks (USTs). Three of the five USTs (one containing gasoline, one containing diesel oil and one containing wax) had previously been removed, and verification samples were previously taken at these locations. One of the remaining two USTs contained photo lab waste and the other contained oil. These USTs were subsequently removed and verification samples taken. Soil borings were drilled to a maximum depth of 25 feet below ground surface (bgs), with the exception of two borings which were advanced to depths of 62 feet and 90 feet bgs. Soil samples from the soil borings were collected at a depth of one foot bgs and at five foot intervals thereafter. Five sets of composited samples from the various borings were taken at depths of one foot, five feet or a combination of both depths. No volatile organic compounds (VOCs) were detected in any of these composite samples with the exception of one which contained a small concentration of methylene chloride and toluene. Four discrete soil samples from two borings were analyzed for VOCs at depths of 2.5, 5, 40 and 45 feet bgs. None were detected. A monitoring well boring was drilled to a depth of 135 feet bgs. This well was screened in the interval between 85 feet bgs and 125 feet bgs. The groundwater sample taken from this monitoring well (MW-1) contained trichloroethene (TCE) at a

concentration of 500 parts per billion (ppb), in addition to 1.8 ppb of 1,2-dichloroethane (1,2-DCA) and 2.0 ppb of 1,1-dichloroethene (1,1-DCE). Groundwater depth was measured at 116.5 feet bgs. The report of this investigation, titled "Site Characterization Report - Former Moore Business Forms Property" was issued in October 1988. The presence of high TCE concentrations in the groundwater prompted the initiation of a Phase II Site Characterization.

The Phase II Site Characterization was performed in November 1988. This investigation consisted of drilling, sampling soil and installing and obtaining samples from three new monitoring wells. Each of the three wells were installed to a depth of 135 feet bgs. Unlike MW-1, however, these three wells were screened at the interval between 110 feet bgs and 135 feet bgs. MW-2 was installed in the northeast corner, MW-3 was installed near the northwest corner and MW-4 was installed in the southwest corner of the property near MW-1. One soil sample from each well boring, at a depth near the capillary fringe (115 feet bgs), was analyzed for VOCs. No VOCs were detected in the three samples. Analysis of the groundwater samples, however, yielded significant concentrations of TCE in all four wells. Groundwater depth was measured at 118 feet bgs. Samples from both MW-2 and MW-3 contained TCE concentrations of 55 ppb, while MW-4 contained TCE at 56 ppb. As a QA/QC check, MW-1 and MW-4 were resampled and the samples were analyzed at three different laboratories. The results for MW-1 yielded TCE concentrations of 150 ppb, 500 ppb and 350 ppb, while the results for MW-4 yielded TCE concentrations of 40 ppb, 60 ppb and 57 ppb. The data had shown that a fairly consistent groundwater TCE concentration ranging between 40 and 60 ppb was present beneath the former MBF site. However, the groundwater in the area around MW-1 contained a concentration ranging between 150 ppb and 500 ppb. The report concluded that since no TCE had been found in the soil and since TCE was never documented as being used at the facility, the TCE contamination in the groundwater was emanating from an up-gradient source, and not from the former MBF site. The results and conclusions of this investigation were issued in a report titled "Phase II Site Characterization - Former Moore Business Forms Property", in December 1988.

During the period when the Phase II site characterization was being performed (October 1988 to January 1989), the Orange County Water District (OCWD) conducted a static soil gas survey, using Tracer Research, to determine the approximate areal extent of VOCs within the Orange County Groundwater Basin and to assist in locating potential source areas. In January 1989, Tracer Research obtained soil gas samples at four locations along the perimeter of the former MBF site. With the exception of tetrachloroethylene (PCE) at three of the locations, the results yielded VOC soil vapor concentrations in the hundredths to the ten-thousandths of a ppb in all samples. PCE soil vapor concentrations of 4.0 and 0.7 ppb were found at two locations in the extreme northeast, while a third

location on the extreme west side, near MW-1, contained a PCE concentration of 0.9 ppb. Subsequently, as part of the activities of the property transfer, a Tracer Research soil gas survey was performed on the former MBF site by Ebasco Environmental for the Lincoln Property Company. Eight sampling locations on the site were chosen. The results yielded much higher TCE and PCE concentrations than the OCWD survey. The location with the highest concentrations of VOCs was in the northern area along the east side of the property. TCE was measured at 380 ppb and PCE was measured at 1800 ppb. The second highest VOC concentrations were found along the east side about mid-way south of the property. TCE was measured at 2 ppb, PCE was measured at 55 ppb and trichloroethane (TCA) was measured at 6 ppb. At a location in the extreme southeast corner, TCE was measured at 25 ppb and PCE was measured at 0.04 ppb. Finally, at a location in the southeast parking area, TCE was measured at 87 ppb while PCE was measured at 0.02 ppb. Three sampling locations surrounding MW-1 and on the west side of the property yielded concentrations in the thousandths and ten-thousandths of a ppb range. The bulk of the high soil gas TCE and PCE concentrations were found on the eastern side of the property. Most of the wells are located on the west side of the property.

Board staff issued a letter on February 27, 1989, requesting MBF to submit a work plan to conduct an additional subsurface investigation, including the installation of up-gradient monitoring wells and analysis of soil samples from the well borings. MBF was also requested to submit a completed Chemical Use Questionnaire. The Questionnaire was submitted within the requested time period but the work plan was not submitted until August 24, 1989.

The Phase III Subsurface Investigation was conducted for MBF by Roux Associates between December 1989 and February 1990. In December, all of the monitoring well elevations were re-surveyed and water level measurements were taken to produce a current potentiometric groundwater elevation contour map. Two new up-gradient monitoring wells were proposed to be installed in the southeast corner of the site. One well was proposed along the eastern boundary and the other well was proposed along the southern boundary. However, by the time Board staff had arrived at the site, the southern boundary monitoring well (MW-5) boring was drilled past the mid-point of the site, on the western side. It was explained that the decision to move this location was made in the field because of access problems in the eastern half of the site and that this well location was hydraulically up-gradient of MW-1. With the understanding that a second up-gradient well would be installed in the southeast area, which is hydraulically up-gradient of the area of high VOC soil gas concentrations, Board staff did not object to this well being installed. However, the second well was never installed. No soil samples from the well boring were analyzed in the laboratory for VOCs and only field headspace vapor analyses were performed. Also, this data never appeared in the report. After initial well development, a sample

of MW-5 taken on January 19, 1990, yielded a TCE concentration of 44 ppb. A Regional Board split sample yielded 48 ppb of TCE, along with 4.8 ppb of 1,1,1-TCA and 4.0 ppb of 1,1-DCE. Monitoring wells MW-2, MW-3 and MW-4 were then sampled on January 22, 1990, yielding TCE concentrations of 51 ppb, 120 ppb and 220 ppb, respectively. MW-1 was dry due to falling groundwater levels and thus could not be sampled. On February 12 and 13, 1990, Roux conducted a second round of sampling. MW-2, MW-3, MW-4 and MW-5 yielded 58 ppb, 180 ppb, 210 ppb and 200 ppb of TCE, respectively. The results indicated that the wells on the west side of the site had increased from around 50 ppb to around 200 ppb of TCE since November 1988. It appears that, Roux's conclusion that the TCE was originating from an off-site source was based on only one of two data points from MW-5 (the second round sample of 200 ppb).

Despite repeated Board staff requests for MBF to install the second up-gradient well and continue well monitoring, no further work has been performed. As a result, Board staff elected to conduct this soil gas survey to gather additional evidence of TCE contamination at and near the former MBF site.

HYDROGEOLOGIC INFORMATION

The former MBF site is located in the forebay zone of the Orange County Groundwater Basin. Most of the recharge of groundwater entering this basin occurs within a several mile radius of the site. The Santa Ana River, and the OCWD recharge basins, are located within two miles of the site. Several flood channel retarding basins, which also act as recharge basins, are located within one mile of the site. The recharge zone consists of the uppermost sediments, which are of Holocene-age alluvium and colluvium, consisting of primarily poorly sorted sands, clayey sands, gravel and silt. The surface topography is relatively flat, with a gentle southwest slope from the Coyote Hills, approximately 1.5 miles to the north, to the Pacific Ocean.

The depth to groundwater beneath the former MBF site has ranged from 116 feet to over 125 feet bgs. Recent water level measurements performed at the site by OCWD found the depth to water to be between 131 and 133 feet bgs. The reason for the drop in water levels is primarily due to the drought, with the lack of normal recharge and the increased pumping of water wells. The City of Fullerton's Kimberly Well No. 1 is located directly adjacent to the northeast corner of the former MBF site. This well pumps water all year and is part of the City of Fullerton's water supply. The general groundwater flow direction is to the west-southwest. However, the groundwater flow direction apparently changes seasonally. The predominant west to southwest flow direction occurs most of the year, between June and January. A shift to the west-northwest mainly occurs between February and May when the rains recharge groundwater, driving the flow away from the Santa Ana River. Much of this was not known prior to the Phase III Investigation, and the placement of MW-5 was based on the less frequent winter-spring flow direction.

PROJECT DESCRIPTION

Four sites were selected for soil gas sampling (see Figure 1). With a limited number of soil gas sampling tubes available, only a limited number of sampling locations per site were selected. The four sites that were selected, and their rational for selection, are as follows:

Site #1 - Pacific Seacraft Corporation

This facility uses organic resins and solvents (reportedly not TCE or PCE), and is hydraulically up-gradient of the former MBF site during the short winter-spring seasonal groundwater flow to the west-northwest.

Site #2 - California Shirt Sales (former MBF site)

Previous soil vapor survey readings indicated VOC levels were much higher than the surrounding area. The sample locations were chosen to confirm the prior high soil gas levels.

Site #3 - Johnson Controls - Battery Division

This site is located directly east, and hydraulically up-gradient, of the former MBF site through most of the year. However, organic solvents such as TCE and PCE are not documented as ever being used at this facility.

Site #4 - McLachlan Investment Company Building (1401 East Orangethorpe Avenue)

This site is also located hydraulically up-gradient of the former MBF site during the winter-spring period of the year. It has also been the site of various past industrial facilities, most recently Northrop Corporation (1981 to 1990 as a warehouse) as well as several machining and fabrication operations, including the Memorex Corporation and the Sylvania Corporation. A portion of the building is currently occupied by Composite Containers and is used as an office and small warehouse.

Prior to installing the Petrex soil gas sampling tubes, site access permission had to be obtained from each site owner. For Site #1, permission was obtained from Mr. Alan Massey and Joe Lock from Pacific Seacraft Corporation. For Site #2, permission was obtained from Mr. Karl Sator, owner of California Shirt Sales. For Site #3, permission was obtained from Mr. James Cox, Vice President, and Mr. Chuck Burks, Environmental Specialist, from Johnson Controls - Battery Division. For Site #4, permission was obtained from Mr. Don Sutro, Vice President of McLachlan Investment Company. Copies of the site access permission request letters, including the proposed locations for installing Petrex tubes, are included in Appendix No. 1. Prior to the soil gas survey, we also contacted Roux Associates, environmental contractors for Moore Business Forms, to inform them of the dates we were going to perform the survey. They had previously requested that we notify them so they could have an observer present while Board staff performed the survey.

On November 14, 1991, 9 Petrex soil gas collection tubes were installed at Site #1 and Site #2 by Dennis Merklin and Kamron Saremi of Board staff. At both sites, drilling through asphaltic concrete was necessary to place the tubes. This was accomplished by using a Boche Rotary Hammer with a 2-inch drill bit. The soil was then augered down to 12 to 18 inches bgs using both the drill bit and a hand trowel. Six collection tubes, including one dual wire tube, were installed at Pacific Seacraft Corp. (Site #1). The samples were labeled #1 through #7. Four tubes (Samples #1, #2, #3, #4 and #6) were placed in each of the four corners of the facility, with the two tubes in the back corners placed between approximately 5 and 12 feet from the boundary with the southeast corner of the former MBF site. The tube in the northeast corner of the site was a dual QA/QC collector wire tube, and the samples were labeled #3 & #4. The fifth tube (Sample #5) was placed near the hazardous materials storage area. The sixth tube (Sample #7) was placed in the parking lot in the southwest corner of the property. Each tube at this site had a clean cotton string tied to the cap screw thread area, which was then run to just below the ground cover, for easy retrieval.

Three collection tubes were installed in the eastern area of the former MBF site (Site #2), where high soil gas readings were found in previous investigations. Two tubes were placed in the driveway between the building and the east property fence line. One of these tubes (Sample #8) was placed near the gate at the northeast corner of the property. The second tube at the next location contained dual QA/QC collector wires, labeled Samples #9 & #10, and was placed at about the mid-point of the property. The third tube (Sample #11) was placed in the middle of the parking lot area in the southeast section of the property. Having run out of the cotton string which was used at the previous Pacific Seacraft Corp. site, a strip of plastic mylar was tied and arranged for the 3 tubes at this site, in the same manner as for the previous site.

To be certain that the plastic mylar did not contribute any VOCs to the tube while placed in the ground, a site blank was created (Sample #101) by keeping a piece of the mylar material in the tube the entire time of the survey, and having it analyzed with the other tubes. The location of each tube was accurately mapped, recorded on diagrams and photographed. The field maps and records are presented in Appendix No. 2, while the photographs are presented in Appendix No. 3. All the tubes were installed in accordance with standard protocol (Appendix No. 4).

On November 15, 1991, 8 Petrex collection tubes were installed at Site #3 and Site #4 by Dennis Merklin and Robert Holub. Four collector tubes were installed at Johnson Controls - Battery Division (Site #3), along its western border with the former MBF site. These tubes were labeled Samples #12 through #15. At each sample location, the soil was hand augered to a depth of between 12 and 18 inches bgs. Samples #12 and #14 were placed on the west side of the railroad tracks and Samples #13 and #15 were placed on the east side of the tracks. Sample #12 was place opposite Sample #8 on the former MBF site while Sample #13 was placed almost opposite Samples #9 & #10 on the former MBF site. Sample #14 was placed further south, opposite approximately halfway between the end of the driveway and the southeast parking area (between Samples #9 & #10 and #11) on the former MBF site. Sample #15 was placed in the southwest corner of the Johnson Controls site, below the base of an old loading ramp, on the east side of the railroad spur tracks, opposite the southern part of the former MBF site parking area.

Four collector tubes were also installed at the McLachlan Investments property (Site #4), along the railroad spur tracks and the Pacific Seacraft site boundary fence. These tubes were labeled Samples #16 through #19. Sample #16 was placed in the northwest corner of the site, on the west side of the railroad spur, between the tracks and the Pacific Seacraft site fence. Sample #17 was placed further south on the east side of the tracks, along the northwest corner of the building, under a loading platform door. Sample #18 was placed further south, about at the mid-point of the building on the west side of the railroad spur, between the tracks and the Pacific Seacraft site fence. Lastly, Sample #19 was place on the west side of the southern end of the railroad spur, between the Pacific Seacraft site fence and the tracks.

The boundary between the Pacific Seacraft fence and the McLachlan Investments building continues further south, but there was very little room to proceed down further, and it was decided that this was probably beyond the influence of any up-gradient sources which could effect the former MBF site. No photographs were taken at these sites. However, the sample tube locations were mapped and recorded on diagrams in the same manner as the previous two sites. These maps also appear in Appendix No. 2. In addition to the previously mentioned Site Blank (Sample #101), a Trip Blank, Sample

#102, was brought to both sites on both days. This tube was not opened. On both days, Greg Murphy (Roux Associates) was present at the sites to observe the installation of the soil gas collection tubes.

On December 19, 1991, all of the tubes were removed from the ground and were sealed and labeled. Greg Murphy was present again to observe the removal of the tubes. The tubes had been in the ground for five weeks. Each set of tubes from each of the two days, along with the two Blanks, were packaged in separate bags, wrapped in protective packaging and boxed for shipment. The tubes were shipped to the Northeast Research Institute (NERI) for chemical analysis on December 26, 1991. Accompanying information included the Chain Of Custody Forms, the Wire Submittal Forms and the Bag Content Information Sheets. Copies of each set of these forms are included in Appendix No. 5.

RESULTS

PCE was detected in every sample at all four sites. TCE was also detected at every site, but only in 11 of the 17 samples. In addition, aliphatic hydrocarbons were detected in every sample at each site. Aromatic hydrocarbons were detected in all samples at Pacific Seacraft Corp. and the former MBF site. At Johnson Controls - Battery Division and McLachlan Investments Company, aromatic hydrocarbons were detected in three of the four samples at each site. Aromatic hydrocarbons were also detected in Site Blank #101 at the former MBF site, although at a significantly lower ion count. Therefore, it is believed that the aromatic hydrocarbons were emanating from the plastic mylar used to tie the sample tubes in place. Sample #101 did not contain any TCE, PCE or aliphatic hydrocarbons. A Final Report of chemical analysis, including the ion counts and GC Graphs for each sample and blank, plus a short narrative evaluation of the results, was received from NERI on January 21, 1992. A copy of this Final Report is included in Appendix No. 6.

Figure 2 shows the four sites, all sample locations, and the ion counts of TCE found at each sample location, while Figure 3 shows the same for PCE. TCE was detected in 3 of the 6 samples at the Pacific Seacraft Corp. site, 2 of the 3 samples at the former MBF site, 3 of the 4 samples at the Johnson Controls site and 3 of the 4 samples at the McLachlan Investments site. The highest ion count of TCE was 233052, found in Sample #11 located at the center of the southeast parking lot area of the former MBF site. The highest ion count of PCE was 232656, also found at this site, in Sample #8 located in the northeast corner driveway entrance. However, no TCE was found in this sample. The TCE ion counts which were quantified ranged from 1262 to 233052. PCE ion counts ranged from 2032 to 232656.

The aliphatic hydrocarbons consist of 6, 10 and 11 carbon chain compounds and dienes. The ion counts ranged from 895 in Sample #18, located along the railroad spur on the Mclachlan Investments site, to 119959 in Sample #12, located in the northwest corner of the Johnson Controls site. The aromatic hydrocarbons consist not only of benzene, toluene, xylenes and ethylbenzene, which are gasoline components, but other volatile organic chemicals (VOCs) containing up to 9 carbon chain compounds. It is these higher carbon chain VOCs which most probably emanated from the plastic mylar material which was used at the former MBF site. The ion count in this site blank (Sample #101) was 2014. The ion counts which were quantified ranged from 4187 in Sample #16 at the northwest corner of the McLachlan Investments site, to 832454 in Sample #11 at the former MBF site.

The analytical results for the four sites are summarized in Tables 1 through 4.

TABLE 1 - ANALYSIS OF SOIL GAS COLLECTION TUBES AT SITE #1
PACIFIC SEACRAFT CORPORATION
(measured in ion counts)

Sample	TCE	PCE	Aliphatic Hydrocarbons	Aromatic Hydrocarbons
1	26472	16007	16009	550240
2	1262	4102	44500	674007
3	124733	7141	18405	507550
5	0	2032	84089	810100
6	0	9673	13160	508219
7	0	12573	14326	151267

Note: Some trichloroethane (TCA) was noted in Sample #1 - (unquantifiable)

TABLE 2 - ANALYSIS OF SOIL GAS COLLECTION TUBES AT SITE #2
FORMER MBF FACILITY
(measured in ion counts)

Sample	TCE	PCE	Aliphatic Hydrocarbons	Aromatic Hydrocarbons
8	0	232656	205924	344925
9	38085	23584	433488	832454
11	233052	4176	80915	517823
101*	0	0	0	2014

* (Site Blank)

Note: Sample #9 - PCE and TCE values elevated due to interference with hydrocarbon compounds

TABLE 3 - ANALYSIS OF SOIL GAS COLLECTION TUBES AT SITE #3
JOHNSON CONTROLS - BATTERY DIVISION
(measured in ion counts)

Sample	TCE	PCE	Aliphatic Hydrocarbons	Aromatic Hydrocarbons
12	0	180399	119959	58846
13	1797	14662	2098	0
14	1711	10857	2282	0
15	29057	25624	4389	7000

TABLE 4 - ANALYSIS OF SOIL GAS COLLECTION TUBES AT SITE #4
McLACHLAN INVESTMENT COMPANY
(measured in ion counts)

Sample	TCE	PCE	Aliphatic Hydrocarbons	Aromatic Hydrocarbons
16	4628	16022	3851	4187
17	127368	115053	27853	11765
18	2546	10488	895	0
19	0	3347	42724	11349
		Trip Blank		
102	0	0	0	0

DISCUSSION

Our soil gas survey shows a significant TCE hot spot on the former MBF property where the previous Tracer Research soil gas survey detected high TCE concentrations. This area primarily covers the entire southeast corner parking lot area of the site and partially up the southern portion of the east side driveway.

Our soil gas survey shows a significant PCE hot spot on the former MBF property where the previous Tracer Research soil gas survey detected high PCE concentrations. This area is located in the northeast corner of the site and the northern portion of the east side driveway.

Our soil gas survey shows the presence of a significant TCE and PCE hot spot on the McLachlan Investments Company property. This area is located near the first loading platform door along the railroad spur line on the west side of the building.

Since this soil gas survey confirms the other results of the previous Tracer Research soil gas survey, we recommend that Moore Business Forms conduct soil investigations in and around the identified TCE and PCE hot spots on their former site. Because of the presence of TCE and PCE on the site, Moore Business Forms should continue to monitor the on-site groundwater monitoring wells on a quarterly basis.

In addition, since it is unknown which former tenant of 1401 East Orangethorpe Avenue may have been responsible for the TCE and PCE contamination, we recommend that McLachlan Investments, as the current owners of the property, conduct a soil investigation in and around the identified TCE and PCE hot spot.

The soil investigations at both sites should be performed in a manner which will define the magnitude of soil contamination, define the horizontal and vertical extent of soil contamination and to determine if soil remediation is necessary.

DISCUSSION

The highest ion counts of both TCE and PCE were found on the former MBF site, although they were found in different locations. As stated in the results section, the highest TCE count was found in the center of the southeast parking lot area. Although the 3rd highest count was found in Sample #3 on the Pacific Seacraft site, it was located within 10 feet of the southeast parking lot on the former MBF site. Since the nearest sample location to Sample #3 on the Pacific Seacraft site had a significantly lower count, it can be concluded that the very high counts in #3 are related to the same southeast parking lot area on the former MBF site, and not the Pacific Seacraft site. In addition, the 4th highest TCE count was located in the eastern driveway, just north of the parking lot, on the former MBF site. Comparing these results to the previous Tracer Research soil gas study on the former MBF site, there is some correlation. A soil gas concentration of 87 ppm was found in the southeast parking lot area, to the northwest of the highest Petrex soil gas ion count. A concentration of 25 ppm was found in the southeast corner of this lot, very near the 3rd highest count found in Sample #3. A concentration of 2 ppm was found near Sample #9 in the eastern driveway where the 4th highest count was found. The only location which did not correlate was at Sample #8, at the eastern driveway entrance, which had a Tracer Research concentration of 380 ppm, but had a 0 ion count in the Petrex study.

The PCE results
The aliphatic and aromatic hydrocarbons were widespread through all the sites.

However, significant ion counts of both TCE and PCE were found in the other two samples at this site. In addition, the samples from the other sites located closest to the southeast parking lot of the former MBF site also exhibited some of the highest TCE ion counts. These included Sample #3 at the Pacific Seacraft Corporation site and Sample #15 at the Johnson Controls site. While PCE appears more prevalent around the entire area, it also exhibits a similar pattern as the distribution of high TCE ion counts. Samples with the higher PCE ion counts from adjacent sites were located adjacent to some of the samples with high PCE ion counts on the former MBF site.

There were two other apparently isolated areas of elevated TCE and PCE, however, the most extensive area with the highest TCE and PCE soil vapor levels appear to be on the MBF Site, and at most of the other sites' sample points which are closest to their corresponding Site #2 points. The double wire samples (#4 and #10) are use in calibration prior to analyses, thus are not reported.

DISCUSSION

Our soil gas survey shows a significant TCE hot spot on the former MBF property where the previous Tracer Research soil gas survey detected high TCE concentrations. This area is primarily in the southeast corner parking lot area and the east side of the site.

Our soil gas survey shows a significant PCE hot spot on the former MBF property where the previous Tracer Research soil gas survey detected high PCE concentrations. This area is located in the northeast corner of the site.

Our soil gas survey shows the presence of a significant TCE and PCE hot spot on the McLachlan Investments Company property. This area is located near the first loading platform door along the railroad spur line along the west side of the building.

RESULTS

PCE was detected in every sample at all four sites. TCE was also detected at every site, but only in 11 of the 17 samples. In addition, aliphatic hydrocarbons were detected in every sample at each site. Aromatic hydrocarbons were detected in all samples at Pacific Seacraft Corp. and the former MBF site. At Johnson Controls - Battery Division and McLachlan Investments Company, aromatic hydrocarbons were detected in three of the four samples at each site. Aromatic hydrocarbons were also detected in Site Blank #101 at the former MBF site, although at a significantly lower ion count. Therefore, it is believed that the aromatic hydrocarbons were emanating from the plastic mylar used to tie the sample tubes in place. Sample #101 did not contain any TCE, PCE or aliphatic hydrocarbons. A Final Report of chemical analysis, including the ion counts and GC Graphs for each sample and blank, plus a short narrative evaluation of the results, was received from NERI on January 21, 1992. A copy of this Final Report is included in Appendix No. 6.

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The analytical results for the four sites are summarized in Tables 1 through 4.

FIGURES

FIGURES NO. 1 THROUGH NO. 3

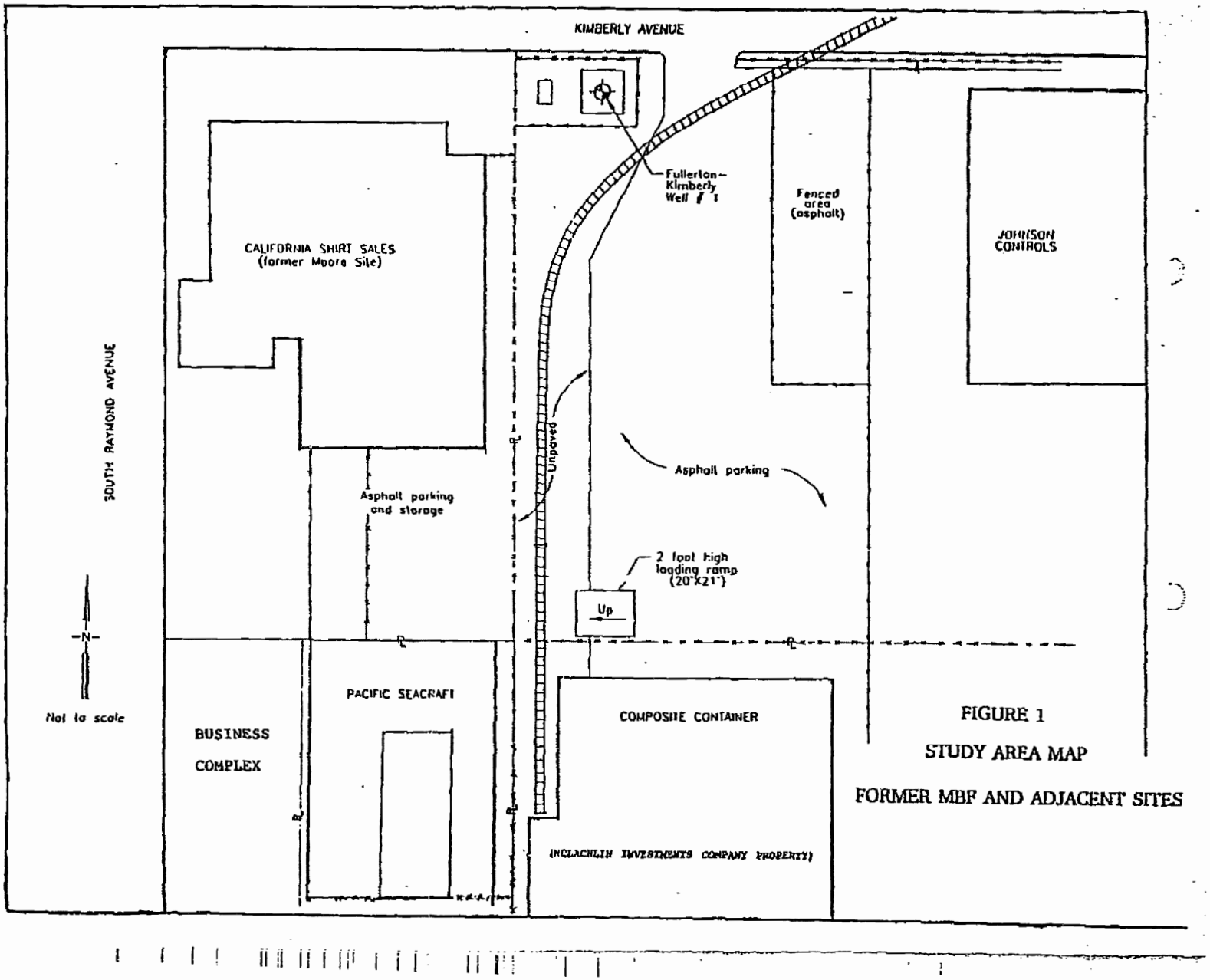

FIGURE 1

STUDY AREA MAP

FORMER MBF AND ADJACENT SITES

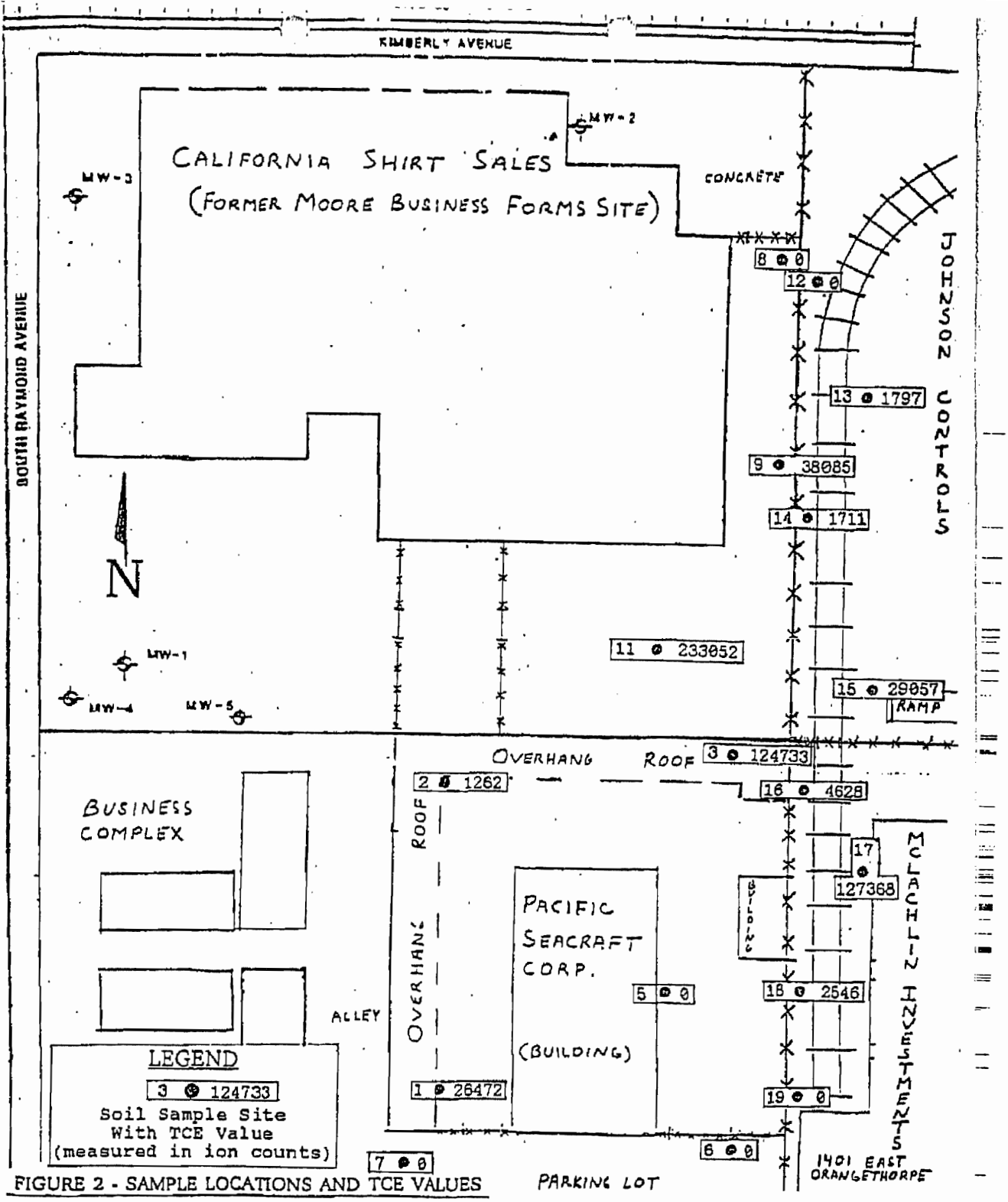

FIGURE 2 - SAMPLE LOCATIONS AND TCE VALUES

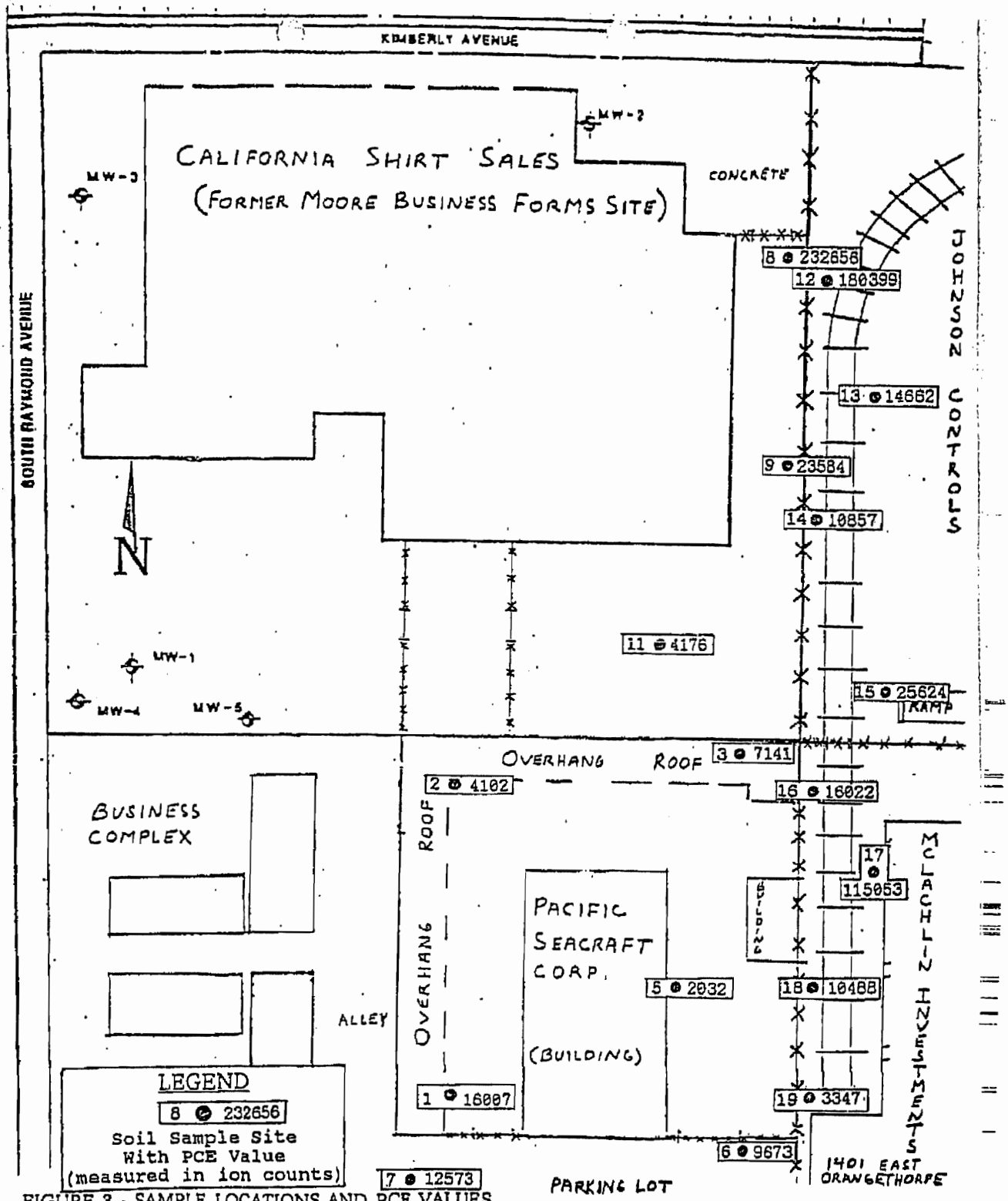

FIGURE 3 - SAMPLE LOCATIONS AND PCE VALUES

APPENDIX NO. 1

SITE ACCESS REQUEST LETTERS TO:

PACIFIC SEACRAFT CORPORATION

CALIFORNIA SHIRT SALES

JOHNSON CONTROLS - BATTERY DIVISION

MCLACHLIN INVESTMENTS COMPANY

APPENDIX NO. 2

FIELD MAPS AND RECORDS

PETREX TUBE PLACEMENT LOCATIONS AND I.D. NUMBERS

SOIL GAS INVESTIGATION SITES NO. 1 THROUGH NO. 4

APPENDIX NO. 3

PHOTOGRAPHS OF PETREX TUBE PLACEMENTS

SITE NO. 1 - PACIFIC SEACRAFT CORPORATION

SITE NO. 2 - CALIFORNIA SHIRT SALES

APPENDIX NO. 4

STANDARD METHODS FOR THE

INSTALLATION AND REMOVAL OF PETREX SOIL GAS TUBES

APPENDIX NO. 5

ACCOMPANYING FORMS SUBMITTED WITH PETREX TUBE SAMPLES

1) PETREX CHAIN OF CUSTODY FORM

2) BAG CONTENT INFORMATION SHEETS

3) WIRE SUBMITTAL FORM

APPENDIX NO. 6

PETREX FINAL REPORT

AND

LABORATORY ANALYSES

Reference:
SPGIT, 2014

Note: This document is confidential and is included in the confidential information packet.

Reference:
WESTON, 2017

Note: This document is confidential and is included in the confidential information packet.

Reference:
WRCC, 2015

FULLERTON DAM, CALIFORNIA (043285)

Period of Record Monthly Climate Summary

Period of Record : 07/01/1948 to 03/31/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)					Insuff icient		Data						
Average Min. Temperature (F)					Insuff icient		Data						
Average Total Precipitation (in.)	3.61	1.89	1.68	1.23	0.36	0.03	0.00	0.03	0.05	0.21	0.98	1.76	11.84
Average Total SnowFall (in.)						No	Data						
Average Snow Depth (in.)						No	Data						

Percent of possible observations for period of record.
Max. Temp.: 0% Min. Temp.: 0% Precipitation: 98% Snowfall: 11.6% Snow Depth: 11.6%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Reference:
YellowPages, 2015

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965 E Discovery Ln, Anaheim, CA

Plexi Fab Inc
(1)
1142 E Elm Ave, Fullerton, CA

Vanderveer Industrial Plastics Inc
515 S Melrose St, Placentia, CA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. Robert Blonstein
Laskey Weil Co., LLC
1925 Century park East, Suite 300
Los Angeles, CA 90067

RE: Northrop (Y19)
1401 East Orangethorpe Avenue
Fullerton, California
EPA ID No.: CAN000900325

Dear Mr. Blonstein:

Enclosed is a Preliminary Assessment (PA) report of the Northrop (Y19) facility ("the Facility") located at 1401 East Orangethorpe Avenue, Fullerton, California. This report was completed by Weston Solutions, Inc. for the U.S. Environmental Protection Agency (EPA) under Section 104(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9604(a), commonly known as Superfund. The purpose of the PA is to determine whether this Facility may qualify for further Site Inspection (SI).

The Facility resides within the footprint of the Orange County North Basin groundwater plume, which is contaminated with 1,1-DCE, PCE, TCE, 1,4-dioxane and perchlorate. A PA for the groundwater plume has been completed and an SI for the plume is underway. The SI report is expected to be finalized this summer. Both PA and SI reports for the groundwater plume will be available upon request.

Based on information in the enclosed report, EPA has determined that further assessment of this Facility may be warranted. EPA, state, or local agencies may seek to further investigate or remediate the Facility individually or as a part of the Orange County North Basin groundwater plume.

If you have questions, please contact the Site Assessment Manager, Kim Hoang at (415) 972-3147 or at hoang.kim@epa.gov.

Sincerely,

6/29/17

Mindy Clements, Chief
Brownfields and Site Assessment Section
Superfund Division

Enclosure

cc: Eileen Mananian, DTSC
John Scandura, DTSC
Maile Gee, RWQCB
Nick Amini, RWQCB
Dave Mark, OCWD